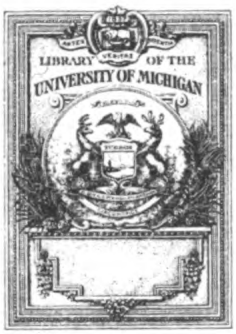
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Original Contributions
[EXCLUSIVELY FOR THE MEDICAL HERALD.]

PREPARALYTIC PHASE OF ACUTE POLIOMYELITIS

FRANK PARSONS NORBURY, A.M., M.D.
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WE OWE to Wickman, of Sweden, the modern conception of acute poliomyelitis as a definite clinical entity. Founded upon his observations of this disease, in the epidemic of 1905, he contributed the classical monograph discussing the epidemalogical, pathological and clinical features of the disease. In these studies he established for all time the essential fact that acute poliomyelitis is an acute infectious and contagious disease; a definite clinical entity, and may occur with or without paralysis. If paralysis appears, it is but an incidental and accidental occurrence.

It was Wickman who first called attention to the abortive type, the cases which never develop paralysis. The name "abortive type" seems to be a misnomer in the light of studies of later clinicians. Notably, those of Draper, who says, "We are dealing with a disease which has two distinct phases, one of a general systemic nature, another of specialized expression in the form of central nervous system disorder." The general systemic phase is the disease, as it also is the preparalytic phase or stage of the disease.

Paralysis is the accident or result of the disease just as perforation of the intestine is an accident of the disease, typhoid fever or paralysis following diphtheria is the result or accident of the disease diphtheria. As in typhoid fever, diphtheria or other infections with an aftermath, the question of relationship between the general systemic phase and the localized accidents, is one of clinical pathology.

Acute poliomyelitis shows other lesions than those of the central nervous system. There are generally distributed lesions in the parenchymatous organs and lymphatic structure of the body. The group of clinicians of the Rockefeller Institute, in a published monograph (Peabody, Draper, Dochez, 1912' emphasize the clinical pathological fact that the disease, acute poliomyelitis, is not limited to the central nervous system. Rosenow in a report of careful pathological studies based on seventeen cases which came to autopsy, says, "The gross microscopic findings in all cases were typical of acute poliomyelitis." "The mesenteric lymph glands were swollen in most cases." "Peyer's patches were swollen and the lymphoid follicles in the intestines and mesenteric glands were edematous and hemorrhagic in cases in which there were marked gastrointestinal symptoms.". The clinical pathology of the disease, therefore, shows that the paralysis which has always been the central theme in the discussion of the disease is only the peculiar localizing aftermath of the disease; that preceding the paralysis there is an acute systemic phase—the preparalytic phase or stage—which while not clearly characteristic or definite, is the disease, and as such, is and should be, the objective in treatment.

In other words, we err in diagnosis when we wait for the paralysis to enabel us to recognize the presence of the disease. Draper emphasizes this point of view by saying "From the very first, all (observers) have agreed that there was an acute stage in poliomyelitis. Usually this stage was looked upon as representing the prodromal period, which with varying severity, ushered in the paralytic phrase."

The experimental pathologists, Flexner and Lewis, and others established the belief concerning the infectious nature of the disease; that it was transmitted by a filterable virus which, when introduced in the monkey, will

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produce the disease; that by repeated inoculation from monkey to monkey, the disease can be carried on indefinitely. Rosenow, you will recall, believes the disease due to a plemorphic coccus, which organism he claims to have found in adenoids, tonsils, mesenteric lymph glands and in various parts of the central nervous system. He believes the organism bears etiological relationship to poliomyelitis. This opinion is based on his clinical observations and experiments. He concludes that the serum of a horse immunized with freshly isolated strains from monkeys had pronounced effects in the treatment of human poliomyelitis.

Rosenow's theory has not been fully accepted. Experimental pathologists believe that the virus of acute poliomyelitis is transmitted with the cultures of Rosenow and that while the microbic organism is found as stated by him, it is not the activating agent but rather accompanies the virus. The pathological process found in the nerve cells is that of the virus and not of streptococci.

Draper, in a personal communication to Lovett, a copy of which he recently sent me, says "Amoss but a year or so ago failed to get protection of monkeys with the serum against well known strains of polio-virus."

The pathology of acute poliomelitis seems definite and characteristic, as will be shown in the slides exhibited by my son, Dr. Garm Norbury.

The epidemiology of the disease has been exhaustively treated in accumulated literature of the disease. Wickman, in 1905, first considered the obscure question of carriers, especially in the type which he designated as abortive cases. Draper insists, and wisely, too, that this term "abortive" should become obsolete, as from his observations and the experiences in all great epidemics, fully fifty per cent to eighty per cent of cases of acute poliomeylitis do not develop paralysis. This fact should call our attention to Frost's report on epidemiology (U. S. P. H. S., 1913, p. 247), who says "If poliomeylitis is a contagious disease, confined to human beings, the sources of infection, the chief agents in dissemination of the virus, must be cases of illness not recognized as poliomyelitis, or more probably passive carriers of the virus.

Draper (p. 27) says, "As there is no convenient way of recognizing these healthy carriers, their number must remain an uncertain quantity and their control impossible."

My experience in the epidemic of 1921, 1915, and 1905 leads me to believe that while it is difficult to trace the links of contagion, there must be a first case in the neighborhood, and as the disease is essentially a neighborhood disease; that it is now known not to be transmitted by insects or animals, the source of contact must be other human beings.

The cases, then, which concern us in this discussion are those which have the syndrome common to acute poliomyelitis, which may or may not develop paralysis. Especially should we be on our guard during the seasonal occurrence of the disease, viz.: the late summer and early fall.

Dr. I. D. Rawlings, Director, Department of Public Health of Illinois, has kindly given me data showing the prevalence of the disease during the past few years. His records confirm the fact that the disease may occur at any time but is more prevalent in the summer and especially during the months of August and September. The epidemiology of the disease shows that it is a community or neighborhood disease; that it is widespread, and in proportion to the population of the community, comparatively few are afflicted.

Again, the clinically recognizable cases are relatively few as compared to the number of mildly sick individuals in the community; obviously, these mildly sick cases and without paralysis are apt to be diagnosed something else, as the epidemic of 1921 has confirmed. The diagnosis of "summer flue," summer diarrhea, summer complaint, seem to be the usual offhand diagnoses.

The perennial occurrence of frank sporadic cases of acute poliomyelistis shows that the infection is endemic and has been, for years. The morbidity returns, too, indicate that the disease is constantly present in communities. Frost says while it seems at first almost inconceivable that a disease like poliomyelitis could be generally endemic without being more often recognized, the hypothesis that it may be so, is supported by some fairly close analogies, viz.: pellagra, hook worm, measles, typhus, etc. The prevalence of encephalitis lethargica during the past two or three years should also put us on our guard for early recognition and differentiation from poliomyelitis.

Buzzard, before the British Medical Association, 1921, pointed out that we are now faced with two infectious diseases of the central nervou sysstem, in both of which the chief incidence of the inflammatory action may be cerebral or spinal.

Both diseases, namely, poliomyelitis and encephalitis lethargica, are transmitted by specific virus; both may occur in the same patient. The two diseases have much in common and it behooves us to be observing lest we confuse one with the other, or overlook either in our contact with cases showing mild systemic evidences of infection with nervous symptoms.

Mueller, Wickman, Draper and others have called attention to the presence of acute febrile gastrointestinal disorders, etc., in families where a frank case of poliomyelitis exists. The experience in the Waverly epidemic in the neighborhood of Springfield was an example. The symptoms in general are the same as in poliomyelitis. The same particular general symptoms which precede the advent of paralysis in the paralyzed cases.

Wickman, and later Mueller, and observers in this country emphasize the presence of sickness in other members of the family, but without paralysis, presenting the identical syndrome as seen in the paralyzed cases. Mueller carried the observation a step further when he pointed out the endemic centers in different localities, supplied examples of different types of the acute systemic stage of the disease. Thus in one area gastrointestinal symptoms prevailed while in another the inflammation o fthe pharynx and tonsils, etc., were noticed. The epidemic of 1921 has especially confirmed this fact in my own observations.

In the beginning of the disease, the picture is that of any or all acute infections; in children, the insidiousness of the syndrome is more striking perhaps than in the adolescent. But, in the adolescent the picture of the disease may vary but is one that is tragic and in my observations of this year has been serious, fatal in most cases.

As a rule, the syndrome of acute poliomyelitis is in no way distinctive of the disease, excepting as Draper expresses it: "There is a definite clinical picture that is difficult to describe or to transfer an adequate impression of the subtle and striking difference between the onset hours of the disease and those of any other acute infectious disease of childhood." My own experience in observing acute infectious disease as they directly or indirectly affect the central nervous system has taught me this fact, that if the physician will carefully observe his cases, he will find this striking indefiniteness mentioned by Draper is the clue —the hunch, so to speak—that suggestively groups the symptoms as a whole and speaks for infectious affecting the central nervous system.

First, observe the patient. If in bed, note his position. The defensive attitude assumed in self-protection from pain; note his facial expression, especially the eyes, which Peabody describes as "The glazed porcelain quality of the sclera and corneas, the puffiness of the eyes, the expression of apprehension and watchfulness of the physician's movements. The restlessness and the peculiar whining cry when moved or touched. This cry, let me say, is not limited to children. Just recently I saw it in a case, the patient herself being the mother of a two year old child. Then, observe the respiration which is usually of the abdominal type, slightly increased. The abdomen may be retracted as in meningitis.

Then, in your examination for reflexes and Kernig sign, you will notice what Draper calls the "spine sign." When you attempt to handle an extremity or move the patient in the bed, there is a stiffening of the body, a voluntary protective defensive rigidity, the object of which is to prevent anterior flexion of the spine. This conscious effort is often carried to the degree of opisthotonos if the patient is in bed, or to the rigidity of the limbs in attempting to walk, not unlike that seen in del tetany.

We recently had such a case in the Sanatorium, where, in the absence of other prominent premonitory signs, the rigidity and examination of spinal fluid made possible the diagnosis. Draper says there is an essential difference between the reflex phenomena of meningeal irritation, so called Kernig's sign, and this voluntary defense reaction, this protective rigidity, which he calls the spine sign. This sign may be noticed before invasion of the central nervous system; it is a sign of irritation, due to pulling upon the intervertebral ganglia. It is about these ganglia that the virus accumulates before invasion of the meninges and by reason of the irritation, the pain (spontaneous and general) and the hyperesthesia, are present early in the disease.

As evidences of invasion of the meninges, we may note a sudden increase of the spine sign with rapidity developing disturbance of the various reflexes.

A neurological examination is important in interpreting the significance and localizing value of the changes going on with this invasion of the central nervous system.

In further observation of the patient at the bedside, we note the history and presence of fever. The disease may be so insidious as to obscure the observation of fever. Fever may be overlooked in the very young, the paralysis being the first intimation of the existence of the disease. Fever, however, is the most constant initial symptom. The temperature varies from 99½ to 104 F. or more.

The fever is no criterion of the subsequent course nor the degree of severity of the disease. Cases with a high range of fever may recover without paralysis while others with a mild degree show severe types of paralysis and may go on to dissolution. Wickman estimates the average duration of fever to be four days. Mueller placed his average in children at seven days before onset of paralysis. In our own cases where dependable history has been obtained,

the presence of fever varied from two to five days and in one case eight days.

The fever is remittent and may fall to normal just at the time of the appearance of paralysis in paralyzed cases, or may go to normal or be subnormal in the non-paralyzed cases. Or, we may, in the cases which Draper calls the dromedary, which should be called camel type, notice a fall to normal or subnormal temperature with a distinct interval of a day or two, or more, when again there is fever; the curve being distinctive. This double temperature curve or Humps, means extension of the invasion of the disease. Usually, from the general phase, preparalytic stage, to the ultimate invasion of the central nervous system, with resulting paralysis. Fever is not the only feature of this type, as the other symptoms also are more or less significent of the disease. In the so-called straggling cases which run an indefinite course with varying intensity and without paralysis, the degree of fever has very little prognostic value.

Headache is an important symptom and usually is present early. With it is malaise, the patient wants to be let alone, prefers to curl up in a chair or be stretched out on the floor or on a couch. Headache has been noted in many of our cases several days before the presence of fever. But headache, with malaise, or restlessness, irritability, drowsiness and the peculiar whining cry should call for close observation and physical examination of the child.

Drowsiness, not unlike that seen in encephalitis lethargica is very frequent as a marked symptom of the preparalytic phase of the disease. It, too, has some prognostic value; such cases usually have a more favorable outlook. Drowsiness may vary from mild degree to definite coma.

Pain is a more or less constant symptom and is easily elicited on passive motion. The spine sign we discussed; spontaneous pain and the generalized pain produced by motion is noticed early and increases as before stated with the progress of the case. Hyperesthesia is more or less constant, and is regarded by Mueller as, a cardinal symptom. The child or adult does not like to be touched and even the weight of the bed clothes may become distressing.

Sweating is not very common but we have noticed it, especially affecting the upper chest, neck and face. Muscular weakness is present and is apt to affect the lower extremities more than the upper. Perhaps this is more apparent than real because of the weakness of the lower extremities, the patient is more apt to fall and thus have attention called to the weakness. We have noticed it in the muscles of the neck in cases which did not develop paralysis. Weakness belongs to the preparalytic phenomena.

Not infrequently, patients fall and subsequently develop paralysis, which is attributed to the trauma. Just recently, I saw an adult who fell off of a fence. A few days later developed paralysis, thought to be due to injury from the fall. The neurological findings, history, etc., were diagnostic of acute poliomyelitis.

The organic reflexes need to be observed. Retention of the urine is a very common preparalytic symptom. Inhibition of the organic reflexes extends to the bowel movement as well. Spastic phenomena involving the rec tum, as well as the large intestine, are quite common. Spastic constipation is therefore to be looked for and treated as such.

Gastrointestinal symptoms show loss of appetite with nausea and perhaps vomiting as an early symptom. (The vomiting is not projectile type as in meningitis). Diarrhea is very common but varies in different epidemics and in different localities in the same epidemic. There is undoubtedly some association of the diarrhea with the pathology found in the intestines as part of the swstemic infection; while, on the other hand the constipation is the result of irritative involvement of the vegetative nervous system.

Now, while it is true that the clinical picture of the preparalytic phase is not specific or definite and is apt to mislead in diagnosis, even in extraordinary care in observation, yet, we have valuable contributory evidence that will aid in completing the picture. At least this evidence will lessen our errors of omission and thereby give us valuable and timely first aid in early treatment. I refer to the laboratory aids in examination of the spinal fluid.

The spinal fluid may reveal meningeal reaction to the disease before there is any clinical sign or symptom to indicate it. A puncture is indicated in all cases. It can do no harm and it can do good both as diagnostic aid and therapeutically. Puncture should be done primarily in the preparalytic phase, the general systemic stage. It can be repeated with benefit to confirm obsercation of the progress of the disease and as aid in treatment.

The spinal fluid findings are briefly as follows: Early puncture reveals a slight increase of pressure of spinal fluid, which means increase in quantity of the fluid. The fluid is clear; there is increased cell count. Any increase over ten cells is pathological. The count may run up to 2500. A count below 100 rarely develops paralysis; 500 or more usually means a paralysis will follow. Fatal cases show increase from 600 to 1000 or more. Draper says the cells are increased according to the sever-

ity of "the spine sign." The intensity, therefore of the spine sign is a rough prognotic index of the increase of cell count which in turn has prognostic value as to probability of paralysis, and probability of death resulting. Low cell count is usually found in stupor cases. Repeated punctures are advised in the clinical study of a case. Again, the spinal fluid has positive value in differentiating the presence of meningitis in its varied forms.

Let us not forget that fleeting transitory symptoms are the rule in acute poliomyelitis and that to differentiate the disease, we must be ever watchful of every possible contributory clinical factor. There are a number of other signs and symptoms which lend aid in diagnosis of the probable presence of the disease.

The skin symptoms are of importance. Herpes labialis is not common, but does occur. It is more frequent in meningitis. The scarletiniform exanthemata has been noted by my son in several cases. Vescular eruptions also occur. In conjunction with other symptoms the skin signs and symptoms are of great value.

Convulsions, tremors, muscular spasms, etc., are observed in these cases. I would especially call attention to the tendency of the disease to develop in relays of symptoms.

The first group of symptoms are headache, malaise, nausea, vomiting, diarrhea, fever, pain, spine sign, hyperesthesia, muscle weakness, organic reflex disorder, etc. The first hump of the curves—thus far the disease is in its systemic or preparalytic phase and does not show invasion of the central nervous system.

The second relay—the second hump of the curve—shows much the same group as the first, and occurs after an interval of a few to thirty-six or more hours without fever and apparent remittance of symptoms.

Now comes a new insult, and with it we note evidences of invasion of the central nervous system by increase of the spine sign—increased cell count, more evidence of acute illness, return of fever, and finally, a drop in temperature findings, the appearance of paralysis.

My plea is for the recognition of the disease in its preparalytic phase, and its prompt treatment. The patient should be hospitalized as soon as possible that systematic observation and treatment may be more conservatively and scientifically followed..

References:

Wickman-Acute Poliomyelitis Journal Nervous and Mental Disease Pub. Co., 1913.

Draper-Acute Poliomyelitis P. Blackieton Son & Co., 1917.

Peabody, Draper and Dochez, A Clinical Study of Acute Poliomyelitis, Rockefeller Institute, 1912.

Rosenow-Mayo Clinic Reports, Vol. XI-XII.

Front-Epidemiologic Studies of Acute Poliomyelitis, U. S. P. H. S., 1913.

Buzzard-British Medical Asso. Report, 1921.

AN OUTLINE OF THE PATHOLOGY AND TREATMENT OF ACUTE POLIOMYELITIS

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THE pathology of acute poliomyelitis is that of an acute infection in which the chief lesions are those of the central nervous system. There is also evidence of changes throughout the body particularly in lymphoid tissue. Our conception of this pathology is based on reports of Wickman, Strauss, Flexner and his associates, and Peabody, Draper and Dochez. We have had opportunity to study autopsy material from a few cases and to observe the changes as noted by these workers.

The experimental studies in the production of the disease by Flexner and his associates at the Rockefeller Institute for Medical Research have contributed most to the understanding of the pathology in the early stages. The probable route of infection along the lymphatics accompanying the olfactory nerve fibers and the demonstration that this route may prove not only an ingress but also an egress of the virus is among the outstanding features of the experimental procedures.

Interpretation of these studies leads to a more thorough understanding of the earliest pathological lesion as demonstrated in the experimentally produced disease. This is an acute intersititial leptomeningitis. The picture is one of perivascular infiltration with small round cells, the cellular outpouring being the reaction to virus in the spinal fluid in the early period.

The changes from this stage on are probably primarily vascular, partly mechanical, partly toxic. The resultant nerve cell involvement which may go on to necrosis is the demonstration of the "accident of paralysis." It may be considered secondary.

Anatomical and experimental studies have shown that the perivascular spaces of the leptomeninges and even within the cord are projections of the subarachnoid space. Another important anatomical consideration is the arrangement of the blood supply of the cord and medulla, the main supply being from the anterior fissure and surface.

These two features are of fundamental importance in the development of the pathological process and explain many of the characteristics of cord and medullary changes. It is reason-

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able to suppose that in the changes in the pons, cerebellum, cerebrum and ganglia, the mechanism is of the same type though it is much more difficult to trace certain focal necroses which have been observed there.

The advance of the pathological process shows perivascular infiltration of the smaller vessels within the cord or brain. The greater diffusion of the virus along the perivascular tissue brings reaction by the appearance of the cellular exudate producing a sheath along the vessels. The amount of exudate may be such as almost to obliterate the lumen. There are also changes in the endothelial lining which are presumably toxic reactions. Edema is a constant feature, also hemorrhage which may be punctate or diffuse due to the circulatory disturbance.

The next stage is that of the important neurological changes which may be termed the aftermath of the vascular lesions. Some have said that the end result on the nerve cell is altogether mechanical due to vascular changes with the combination of anemia, and pressure from edema and hemorrhage. While that is a suggestive lead consideration of the fact that a highly toxic virus is present must not be neglected, and some of the changes are undoubtedly due to direct toxic action for the picture is nowhere that of mechanical obstruction alone. The factors of vascular occlusion with resultant anemia appear to be the greatest but toxemia does play its part.

A diffuse reaction with cellular infiltration and edema of the gray and white matter accompanies these other changes. Again it is an interesting field for speculation for its cause as to the relative amount of injury from vascular disturbance or direct toxic action. It is, however, a factor in the changes in the nerve cells on account of general pressure and is another way of interfering with cellular nutrition.

The reaction of the nerve cells to the combined effect of disturbance in the blood supply and toxic absorption may vary from swelling and changes in the tigroid substance and Nissl bodies to complete necrosis. The factor of nutrition being diminished or cut off over any length of time is particularly important. If the process limits itself to the stage of nerve cell swelling and then some pericellular edema, the outlook is favorable if absorption can take place or the pressure relations be made more nearly normal. The progressive changes following the original swelling have been noted as infiltration in the pericellular space, and cellular necrosis. The "clean up squad" of polymorphonuclears and endothelial leucocytes enter with necrosis to clear away the debris as a part of an attempt at repair. These are characteristic findings in most autopsy material.

The natural history of the disease from the pathological standpoint from now on is a matter of localization and extent. If the cervical enlargement particularly the upper portion becomes seriously involved death ensues from respiratory paralysis. This is the cause of death in practically all cases. Associated medullary changes may or may not be present.

If the process subsides the process of repair takes place quite rapidly. One cannot speak in the usual pathological association of regeneration and repair when the nerve cells of the central nervous system themselves are involved. They may repair, but a cell once gone does not regenerate. Restoration of function depends upon how many of the manifestations have been due to hemorrhage, edema and pressure of light or moderate degree and upon how many cells of one group have become necrotic.

The polymorphonuclears and endothelial leucocytes soon obliterate the remnants of damaged nerve cells and may show an area in which no nerve cells are to be seen, the infiltrative cells making up the picture. Cases in which the condition has not gone on to necrosis show the nerve cells gradually being restored from the effect of hemorrhage, edema, pressure, toxic action and anemia though it may take six months to a year for clinical improvement depending to some extent on the trophic changes of the neuraxon and dendrites brought about by interference with the normal functions of the cells. Eventually, however, a stationary stage is reached when gliosis fills in the space formerly occupied by gray matter cells. This is the picture which clinically gave rise to the accident of poliomyelitis—the residual paralysis.

As regards other pathological changes the most important are those of the ganglia. Lesions in the posterior root ganglia are again of the same type as those in the cord though the anatomical situation causes some deviation in the picture. The changes over the body are, as noted in the introduction, laregly in lymphoid tissue which reacts to the virus or its toxic products. Areas of infiltration and necrosis, particularly in the germinal centers of mesenteric lymph nodes, Peyer's patches, tonsils sometimes cervical and other nodes are seen. Proliferation of endothelial deucocytes along the lymph sinuses of these tissues is marked. These lesions are of significance in showing that the disease is an acute general infection with reaction through the body and chief localization in the central nervous system.

This development of the pathological process has led us to consider treatment from the

standpoint of it, particularly as regards brain and cord findings as well as from clinical pathology as we shall outline below.

Injury to the choroid plexus mechanism has been demonstrated by Flexner and his associates as playing a great part in the experimental production of central nervous system involvement in poliomyelitis. This leads to the suggestion of increased secretion of cerebrospinal fluid due to choroid irritation. Such a suggestion is borne out by the increased pressure and volume reported in early stages.

Equally important to our minds is the hypothesis of disturbance of pressure relations due perhaps to the combination of choroid irritation and the edema of the tissues as a result of local circulatory disturbance and toxic action.

These are all conceivably factors in interfering with (1) the normal nutrition of the nerve cells of the cerebrospinal axis particularly the cord (2) the passage of neutralizing substances being developed to combat the toxic action.

Anything that will further the circulatory activity should be of help. If the lumina of the small vessels are impinged upon, perhaps occluded by exudate in the perivascular spaces, anything that will relieve that pressure might permit a partially occluded vessel to carry nutriment and normal neutralizing substances to that particular area. Of course we are dealing with miscroscopic spaces at this time, but this is suggested as one feature. Another suggestive lead is that due to the edema of the level of cord involved with the semi-rigid dura more mechanical compression is induced by an increased amount of fluid under elevated pressure.

It is upon these hypotheses that we have come to believe in lumbar puncture with free removal of fluid as our chief therapeutic agent in the preparalytic cases of acute poliomyelitis. Lumbar puncture should be done in any case for diagnostic purposes and in some instances it is of value in prognosis. We have felt that the removal of more fluid than is ordinarily taken for diagnostic procedures has been of therapeutic value also.

Removal of fluid in sufficient amounts should alter pressure relations between non-compressible liquid and partly compressible soft tissue, should permit better venous blood flow and relieve one source of excess pressure that way.

These are given only as suggestive explanations of the mechanism brought about by puncture. We have in mind experimental work following some of the observations of Cushing and Weed to study some of these features more thoroughly.

We did not have human immune serum available when we had this small epidemic of 1921 to meet. Our cases came within short distances so we fell back on spinal puncture. We are not quite ready to accept as yet Rosenow's theory of the pleomorphic streptococcus or the use of his serum. Late in the epidemic some was received and we should have liked to have had it earlier for trial and comparison. If opportunity arises, we hope to use both types of sera in the future.

Other factors in the treatment of the acute cases were rest, absolute and complete; fluids forced by mouth, by rectum, under the skin, easily absorbable diet, free elimination. For children, the most satisfactory eliminant to aid in combatting the spastic constipation has been magnesia citrate or milk of magnesia. Catheterization had to be resorted to in some cases in the early stages; later control was established.

The patients have been kept quiet until the general condition improved, and until hyperesthesia has disappeared; resumption of activities has been gradual, due consideration being given in the cases with weakness, for support, to prevent deformity.

As improvement usually in weakness and paralysis continues up to 6 months to 2 years, and as we are considering here only the acute stage, we will leave that side for the orthopedists.

Expansion of An Old Electro-Medical Manufacturer—The McIntosh Battery and Optical Company, 223-233 No. California Avenue, Chicago, Ill., one of the oldest, most reliable and best known manufacturers of X-Ray, Electro-Medical and Physical Therapy Apparatus in the United States has been re-organized with an increase of capital stock under the name of the McIntosh Electrical Corporation, this move being necessitated by the great demand for Hogan High Frequency Apparatus, McIntosh Polysine Generators, Universal-modes, Hogan Transformers and other equipment of this nature, which has taxed the manufacturing facilities of the Company for some time. Coincidental with this enlargement the Company has established distributing agencies in almost every state in the United States in the hands of local men thoroughly experienced and competent to render the highest order of service to purchasers of these goods. It is predicted that the popularity of this famous make of goods will soon be increased to the point where purchasers may experience some delay in securing apparatus; hence, any one contemplating purchasing McIntosh equipment in the near future will do well to anticipate his needs by placing his order in advance.

ESSENTIALS OF SAFETY IN PROSTATIC SURGERY

By BRANSFORD LEWIS, M.D., B.Sc., F. A. C. S., St. Louis, Mo.

THE difference between a fifty per cent mortality and a five per cent mortality is the basis of this paper: Whether fifty out of a hundred persons shall die from prostatectomy or only five per cent. A mere second thought will indicate the vast import of this consideration.

Formerly the mortality of prostatectomies, even in the hands of those devoted to this work and in the large hospitals of this country and abroad was from 35 to 50 per cent. But in the past decade the problem has been studied from many angles and with striking results. A number of specialists have reported death rates as low as 5 to 7 per cent, in series of 500 to 1,000 cases. This is most gratifying—as far as it goes. But it is claimed by some in position to know, that such a low death rate is not met with in the operative work of the general profession throughout the country. That with these the mortality is much nearer the old figures of 35 to 50 per cent than the new.

The question arises: Why this portentous disparity?

The highest aim, the basic principle of prostatic surgery should be embraced in two words: Safety first: The restoration of competent urination, with as little risk to life as possible.

Of the factors promoting this improvement the chief one is the better understanding and higher appreciation of the preparation of the patient for operation. Formerly it was quite customary for surgeons to be summoned by telegram to the country or small town to do a prostatectomy. Arriving in the early morning, the surgeon would get a hurried history of the case (while preparing the instruments, likely), dive into the operation, close up and turn over the after-treatment to the local surgeon and depart on the noon train. Is it surprising that the mortality under such circumstances was shocking?

Such a program makes it utterly impossible to carry out or apply the essentials of preparation and safety as they are now understood.

Time for this is an element that cannot be discounted. It is essential for carrying out the various laboratory and technical tests to determine the fitness of the patient for operation, and for applying the various measures of treatment that are to make the operation safe and successful.

It takes time to gradually and safely make the change from a chronically distended bladder to an empty one—and at the same time avoid the dangerous pitfalls of hemorrhage, of suppression of urine, uraemia and death. It takes time to stabilize the heart action, to get the bowels habituated to regularity and keep up the regularity during the trying period of post-operation. And the operating surgeon ought not to be pushed with urgings when he is conscientiously trying to carry out his program of preparation for safety first.

He orders the 24-hour urine measured and examined in various ways—that he may learn not only the physical condition of the kidneys but also their **functional activity,** the more important of the two questions. While albumin and casts may be and frequently are present in such cases without precluding operation, the detection of **low functioning** of the kidneys is a much more forceful warning. Hands off until conditions are improved, must then be the watchword. A week, a month, six months, if necessary to re-establish reliable functioning of the organs involved. After which the operative requirements may be carried out with the extreme probability of attaining the success and safety desired.

Functional activity of the heart, lungs, kidneys and digestive tract must be determined and secured before essaying operative measures of any magnitude. While this applies to surgery in general, it applies especially to surgery of the genito-urinary tract. It is vital with surgery of the prostate.

The means and methods of determining the functional activity of the heart, lungs and alimentary tract are well known and need not be detailed here; but those for estimating renal function are not so well known. In fact this whole question is relatively new and may indeed be considered in its developmental stage.

There are two directions of attack, so to speak; one, the estimate of **activity of excretion** by the kidneys—the amount of body poison which they throw out through the urine; the other, the amount of such poison products which they **fail to throw out,** and which are retained in the blood and tissues of the body. While some consider the determination of this latter question (the amount of retained products) the more important of the two, it seems more pertinent to say that the estimates should be based on both principles,—the determination of both excretions and retentions.

Low renal functioning is obviously indicated, for instance, by the presence of a small amount of urine secreted in 24 hours, low specific gravity with decreased urea and total solids. But in many cases the situation is not so obvious.

Read before the joint meeting of the Medical Association of the Southwest and Missouri Valley Medical Association, at Kansas City, Mo., October 25, 1921.

There may be a large urinary output in 24 hours with moderate specific gravity, and conditions may look satisfactory, but in reality the patient may topple into suppression of urine, acidosis and death on slight provocation. It takes some of the more refined tests to disclose this in time to warn the surgeon.

While indigo-carmine, methylene blue, phloridzin, cryoscopy have all been commended as efficient tests of excretion, they have not given the satisfaction and service that have been rendered by phthalein, brought out by Rountree and Geraghty a few years ago. This, in brief, consists in the injection of one cc (from an ampoule) of the standardized pthalein solution into the muscle of the subject and observing (a) the promptitude with which it appears in the urine thereafter; and (b) the relative amount of the drug that is excreted in the urine in the next succeeding two hours. The technique of making the test is now well known and need not be described here.* In health this color test should appear in the urine in from six to ten minutes; and 40 to 50 per cent of the phthalein should be recovered in the first hour after injection, and twenty to thirty per cent in the second hour. To do a prostatectomy in the presence of only five or ten per cent phthalein excretion in two hours is to invite disaster.

Of the retention tests probably the most useful are the blood-urea and the non-protein nitrogen tests. These are similar and about equal in value. Geraghty considers a concentration up to 55 milligrams of urea per 100 cc in the blood of no serious portent; that is, from 20 to 40 mgm. is considered normal. I am inclined, however, to believe these figures offer too wide a latitude, and take 20 to 30 mgms. urea as normal, and 35 mgms. as approaching the pathological limits. Above that, the prognosis. is rendered grave in proportion to the percentage present; 75 mgm. menacing; 1 to 2 grams gravely dangerous. But if the excess be due to urinary obstruction that can be removed, the prognosis may be rendered less grave. For non-protein nitrogen the normal limits are from 30 mgm. to 50 mgm. per 100 cc of blood.

For blood-urea determination the technique of Marshall (1) is the most practicable; while for non-protein nitrogen, that of Folin and Dennis (2) is recommended.

The percentage of hemoglobin in the blood is of very considerable value in its prognostic significance: Above 60 per cent is favorable; 50 per cent questionable; 40 per cent unfavorable; 30 per cent probably fatal, in association with a major operation, such as prostatectomy.

The leucocyte count, the red and white cell counts are of much value and should have due consideration given them as is done in general surgical conditions. Likewise the blood pressure. If excessively high or unduly low the surgeon will do well to correct these conditions before operating. Anesthesia itself influences the pressure appreciably, both ether and nitrous oxide causing increased pressure at first but marked by lowered pressure if there is shock. The operating itself may have a similar influence on the blood pressure and deserves attention in that light.

Methods of Preparing the Patient for Operation

Conducting the transition between chronic over-distension of the bladder and the emptying of that organ is one of the most delicate and exacting functions the surgeon is called upon to perform. If he put a catheter into a chronically distended bladder and at once draw off all the urine, he is liable to precipitate hemorrhage or suppression of urine and death in a day or two: The legitimate danger of too abrupt decompression. On the other hand if he use the plan of repeated catheterization he occasions pain and gets the parts constantly more irritated until it soon becomes intolerable. He is blamed if he does and he is blamed if he doesn't.

A plan preferable to either of these is that of inserting and retaining a catheter in the urethra and bladder, controlling the outflow by means of a wooden plug in the end of the catheter. If 30 ounces of residual urine are found in the bladder this may be drawn off, followed immediately by the injection of half the quantity of warm 3 per cent boric acid or 10 per cent sodium chloride solution, which is held in the bladder until the time for the next urination by again plugging the catheter. When 20 ounces have accumulated, it may be evacuated and ten ounces of the same antiseptic solution introduced.

By successive and gradual reductions made in this way the situation is controlled admirably and but little risk is run. It is much preferable to immediate supra-pubic drainage which does not permit of such a safety-valve arrangement as the plugged urethral catheter. After the transition has been safely accomplished and the emunctories are still active, it is permissible to drain supra-pubically, as a first step, for instance, in a two-stage prostatectomy; or continuous drainage through a urethral catheter may then be carried out. But until the transition from full to empty bladder has been ef-

*It may be found in any modern text-book on urology.

(1) Marshall, Jour. Biolog. Chem. 1913, page 283.
(2) Folin and Dennis, Jour. Biolog. Chem. 1910, iv, 429.

fected in this guarded way it is unsafe to make continuous drainage by any route.

PROCTOCLYSIS. One of the most valuable procedures during the transition period above mentioned, is that of introducing much fluid into the system by means of proctoclysis by drop method, either normal saline or sodium bicarbonate (3%) solution being used eight or ten hours daily. This serves to militate against the establishment of acidosis, the **bete noir** of the prostatic situation. Some patients are unable to ingest sufficient fluids by mouth, which deficiency is supplied by the proctoclysis.

The use of digitalis is very liable to be of value at this stage, stabilizing and strengthening the cardiac condition, as well as promoting urinary excretion. These measures I regard as regular requirements in the preparatory treatment, appropriate even in the presence of favorable laboratory tests (such as have been outlined). An illustration of the proof of this position is furnished in a recent case, the chief points of whose history are briefly as follows: Mr. S—, age 63, whose first consultation was in August of this year. He was of robust appearance, even inclined to corpulence. A very large prostate was found with 32 ounces of residual urine. The various pre-operative tests were applied with favorable results.

The urethral catheter drainage was carried out in the way described and with no upset or even objectionable incident. Indeed, the patient improved so satisfactorily that he decided to return home and postpone operation until a later date. He returned to St. Louis in September and we again found the several tests favorable, as follows: Hemoglobin 95 per cent; phthalein 1st hr. 35 per cent; 2nd hr. 30 per cent; red cells, 4,800,000; white 8,400; no casts. Instead of again putting him through the stages of catheter drainage and proctoclysis, etc., we accepted the tests and examinations as full assurance of a happy outcome and acceded to his wish for operation without further delay. A very large prostate was removed at one-stage supra-pubically under ether anesthesia, without any undue bleeding or any unpropitious occurrence. The patient progressed satisfactorily for four days, when we noticed a beginning hebetude, dry tongue and torpid bowel action, with occasional slight hiccough that portended trouble. We gave calomel, laxatives, purgatives, enemas low and high; pituitrin, digalen, adrenalin, strychnine, etc., but without effect. Paralysis of the bowel became complete, resulting in acidosis and death within five days. My deduction is that following habitual urinary retention, even in the face of favorable laboratory and pre-operative tests, it is advisable to carry out certain preparatory measures (urethral catheter-drainage as described, proctoclysis, digitalis and forced fluid regimen) until all of the functions are carrying on with their proper activity and the resisting powers of the organism have been fully demonstrated. It has long been recognized that the patient's resisting powers are better after he has become accustomed to the use of the catheter than before. There is always a possibility of some shock or disturbance with the first use of a catheter with drainage even though aseptic and **au fait** in every way.

So much for preparation—against the evils apparent as well as those unseen and potential. It is apparent that these several preparatory measures can be carried out even by the family physician or the general practitioner before the patient is submitted to operative measures. If the practitioner will observe all of the precautions and aseptic regulations explicitly and carefully, he may just as well as not save the patient much time as well as improve his chances accordingly.

As to measures of safety in connection with the operation of prostatectomy itself there are considerations of great importance. We are all acquainted with the discussions on anesthesia as bearing on this subject. We know that some are in favor of spinal anesthesia, others of ether, others of nitrous oxide-oxygen gas. I believe the method of operating is intimately related to this question and should be discussed in connection with it.

I am convinced that if the patient is in poor or questionable condition from any cause, the operation should be done in two stages; the first stage (after a sufficiency of urethral catheter drainage to render the situation secure, as previously mentioned) under local, infiltration anesthesia, a procedure that is innocuous and free from shock or danger. By this means supra-pubic drainage is established and maintained as long as desired without any depression or disturbing effects. The patient may sit up in bed on the day following, and become ambulatory until time for the second stage. This is the stage about which the discussion on anesthesia is appropriate.

Spinal anesthesia, although ideal when successful, is really the most dangerous; few now remain of its former champions, since there have been so many deaths from its use.

When there is no serious heart lesion it seems perfectly permissible to remove the gland under a brief gas anesthesia. If cardiac trouble exists, ether anesthesia is probably safer. If the question is serious, one had best resort to sacral (caudal) anesthesia, which also is free from shock or mortality record. The main ob-

jection to it is that it is not always effective. Under ordinary conditions ether is not depressing or injurious in such cases, except where bronchitis exists. In this case gas is preferable.

A high supra-pubic incision is preferable to a low one, as promoting easier recovery. When one has incised through the layer of muscle and fascia it is well to abandon the knife and expose the bladder with blunt dissection—with forefinger of each hand covered with gauze. This permits confident exposure of the bladder without danger of wounding the peritoneum; and without extreme Trendelenburg position, something not always safe with elderly individuals, permits pushing the peritoneum high enough to provide for a high opening into the bladder. It permits the application of fixation sutures (*) for protecting against possible future infection between the walls of the bladder and abdomen.

On removing the gland definite and sufficient measures against hemorrhage must be taken; of which the use of the Hagner rubber bag is most universal at the present time. The stem of this bag is drawn down through the urethra, the bag is placed within the neck of the bladder, when it is distended either with air or water (the latter preferred) and held tightly against the vesical neck and cavity from which the prostate has just been removed, the pressure of this contact controlling any oozing of blood that may be inclined to ensue. Supra-drainage is made for 24 hours through a rubber elbow-tube. After that usually the bag is replaced by an ordinary rubber catheter through the urethra, connected with a Bremerman suction apparatus if drainage lags.

Proctoclysis of alkaline solution by drop method is started shortly after the operation, and calomel followed by a mild laxative, is given on the second day.

Good drainage is the **sine qua non** following operation, and this proves the test of a good nurse. She may have to manipulate the tube, or inject warm water to disengage mucus plugs or clots, etc., but at all costs **good drainage must be kept up.**

In removing the air bag it is well to insert a No. 20 Fr. rubber catheter into the end of the air bag tubing and in drawing it out of the bladder the catheter is drawn into the urethra, its eye just within the bladder cavity, appropriate for carrying on the drainage thereafter until the supra-pubic wound closes. Only enough irrigation is carried out to keep the tubes clear.

In the process of healing sometimes the mucosa surrounding the neck contracts like a diaphragm and offers renewed cause of obstruction, possibly retarding the closure of the supra-pubic wound. This must be dealt with by dilating with a Kohlman dilator or by direct incision. Tabs left over from operation occasionally require removal. Balsam of Peru makes an excellent dressing for the closing wound. If it should become infected a moist dressing of 8 per cent silvol in glycerine is most efficient. If the infection is pyocyaneus the Bulgarian bacillus emulsion daily for three days is effective; or Dakin's solution applied as a moist dressing.

With these measures of safety logically and intelligently applied a patient should be conducted through his prostatectomy successfully and the restoration to comfortable and competent urination should be complete—whether the subject be sixty or seventy, eighty or ninety years old.

Modern urology seems to place no age limit on these cases. It is only the physical functioning condition of the internal organs that presents limitations that must be observed.

550 Century Building.

* See description by the Author; "Prostatectomy, with its preparatory and post-operative treatment; Surg., Gyn. & Obs., May, 1919, p. 462.

DISCUSSION

Dr. E. G. Mark, Kansas City: I do not think that I ever heard a clearer exposition of the problems met with in prostatic surgery than in the paper presented by Dr. Lewis. I do not know of any surgical condition that we have to meet, with the possible exception of goitre, that requires more investigation, more pre-operative care and more nursing than the operation of prostatectomy. Each case is law to itself, and you cannot lay down any hard and fast rule for operation or pre-operative treatment. Ordinarily the prostatic does not reach the surgeon in his first stage of incomplete retention, but only when he has carried for years a great residuum. You catherize the chap, you get a clear urine, and you think that you have a good risk; but it is not so. And so the words of Dr. Lewis are very timely.

We have been using mostly the Phthalein test, and the urea nitrogen test; also obtaining the ordinary blood picture and the coagulation time.

We have used delete catheterization in some cases —not the continuous catheterization, but rather intermittent. When we use the catheter as a temporary drainage we use it as Dr. Lewis has described. It should be done at least once a day and the urethra thoroughly irrigated. Occasionally we see in the literature the arbitrary statement that the two-stage operation is necessary and that the proper way is to open the bladder on a Monday and take out the prostate on the following Monday. This statement is often taken too seriously. But that is not the question at issue. The question is that of stabilizing the entire economy. You must stabilize these men. You get a specific gravity of 1010, then 1015, then perhaps 1000, and such a patient is in no condition for operation. When you get your patient stabilized at about 1010, the urea output 1½ to 2½ per cent, and the blood urea nitrogen gets down below a point of 18, it becomes safe; even then it depends greatly upon what that patient gets in the way of food. Sometimes the blood urea nitrogen goes to 42 or even to 48, ap-

proaching the danger line. When it drops gradually day by day and stabilizes at 17, 16, 15, we feel rather safe to do the primary procedure.

A point about the phthalein—overlooked in practically every hospital, and by every nurse—is that while the manufacturers put it out in supposedly 1 cc. ampoules, they often contain 1½ and even 2 cc. Therefore, it is well to remember that the proper injection is one cc. and not one ampoule.

The operative procedure as suggested by Dr. Lewis is practically that used by us—opening under local anesthesia, later enucleate the prostate, Hagner bag, etc.

Packing a prostatic cavity instead of using the bag seems by its pressure to add to hemorrhage rather than to decrease it. Those cases where we packed seemed to bleed more than those where we did not pack.

As to those who have trouble with catheter drainage, many surgeons jab the tube deep down into the bladder. That does not mean drainage. If you get the tube more than 1½ inches into the bladder you will not get perfect drainage. You must get it in just within the bladder.

We have been in the habit of suturing the bladder beginning at the lowest angle—a running suture of the serosa and musularis, making a continuous purse string suture, bring it back, whip it over up to the tube, whip over the serosa and tie to the lower end. You thus retain the drainage tube for 9 to 10 days without losing a drop.

I think Dr. Lewis's paper is well timed, and everybody should consider the fact that safety does not lie in opening the bladder today and taking out the prostate in ten days; the important point is that you must first stabilize.

Dr. Hugh Cabot, Ann Arbor, Mich.: I am particularly glad to add to the testimony given by my friend, Dr. Lewis. It is a very important question and one upon which there is surprisingly little information over the community. It is undoubtedly true that the operative mortality in the hands of those who are doing this operation frequently has been falling progressively from 25 per cent or more to 5 per cent or less; but the mortality of prostatectomy in this country, taking it by and large, is in my judgment not any lower today than it was ten years ago. Within the last two years, I have had rather unusual opportunities for finding out a batting average of people who are taking out prostates. I do not refer to the expert urologist. I refer to the average surgeon. I have been teaching at Michigan, and every year have sent out into the hospitals all over the country seventy-five to a hundred doctors, and they come back to see me and tell me how they get on.

About three-fourths of that group go to hospitals, and out of that group, one-fourth go to the larger hspitals. In the smaller hospitals, the most prostates are being operated on, and the mortality is 25 per cent. I saw the other day one of my pupils of last year who is in a city of 50,000 inhabitants, and he told me that no single prostate has escaped alive. They are doing a one-stage operation which I believe for the average man is not safe. They are treating these cases like the ordinary operation in surgery which can be done at a time of election—by which is meant a time of election for the surgeon, and not for the patient.

In prostatectomy, the boot is on the other leg. These people have not a sound organ in their body. We have been paying too much attention to conditions of the urinary tract. The patients whom I lose die from the condition of their circulation or lungs, and not from the condition of their urinary tract. I want particularly to emphasize the importance of knowing about the rest of these fine old "critters," who have one foot in the grave. They are practically all fundamentally unsound and must be handled with gloves. Before the days of the procedures just described, these people used to die regularly. They died because they were old and somewhat shop-worn, and because they could not stand being hit three times in the same place. In the first place by draining their bladder, thus decompensating their kidneys, which is enough to kill a mall proportion. We then infected them; practically always these cases would become infected with the colon bacillus, because the decompensation of the kidney makes the system more susceptible. And finally we operate on them, and leave a fine, large, raw, cavity which is an inviting feeding ground for any bug that happens to be there—and there are always plenty there.

The essence of the modern management of obstructive prostates, (and I use that term in preference to hypertrophy; in fact, the prostate is often atrophied), is to hit them when you must, but do it as lightly as possible. Let them down easy. I believe considerably more in the two-stage operation than does my friend, Dr. Lewis. I am satisfied that he can do a one-stage operation without materially increasing his mortality. But what we must do for these people is to plan a campaign which is similar to producing a Ford car the essence of which is to be fool-proof, and in which it is almost impossible to get off the road.

The two-step operation is a very important addition to safety. It shrinks the prostate. The large prostate which you feel through the wound made at the first stage often shrinks very much, and I am almost sure that the amount of bleeding is enormously lessened if this bladder has been previously drained by a supra-pubic opening. Again you have cut down the possibilities—the possible sites of infection. A wound which has been made about four, eight, or ten weeks before is protected against infection by the best mechanism known to nature—granulations. A granulating wound is better protected than any protection we can get, and the worst objection is practically removed.

Again it shortens the operative procedure, and this is of first class importance. I do not believe it is necessary to get through this operation in a stated time, such as five, six, or eight minutes, but the difference in time to get through the abdominal wall is time which some patients cannot afford, therefore that part should be done as a preliminary procedure as soon as the over-distention of the bladder is removed.

We see a great many cases in whom retention has not occurred, but with moderate residual. These people have a less stormy time in getting adjusted to their bladders. In them the first stage may be done early, and the catheter may be used for a few days. The interval between the first and second stage is one which no man can well predict; but you can say with certainty that people in relatively good condition will have to wait less long than people in relatively bad condition.

Dr. Lewis referred to a case in which he drained for nine months. I have several patients who drained well on for a year before I dared to touch them, and I believe it is wise to err on the side of waiting too long rather than going ahead when in doubt.

I believe that in enucleation of the prostate anesthesia is of considerable importance. Dr. Lewis suggested that I was an advocate of spinal anesthesia. I am not. I was, but I gave it up. I have, however, on a few occasions resorted to local anesthesia in the second stage, and with considerable success, but it is fussy and uncertain, and I do not recommend it. Personally I regard gas-oxygen, well administed, as the anesthetic of election. Largely many of these people have bronchitis, signs of which may be very

difficult to determine. Many of them have emphysema, and I regard ether as irritating. But unless you can have gas-oxygen given by an expert, then ether is the best anesthetic for election.

I have been considerably impressed by the value in studying blood pressue in these people, a point to which Dr. Lewis referred. There has been in my experience during the last year a very striking parallelism between the blood pressure and the kidney function, as studied by the method described. In many of these people with retention, as the kidneys become stabilized the blood pressure comes down; when the blood pressure becomes stationary, the kidneys also become stabilized. I believe this study will become valuable. On two or three occasions this year it has enabled me to avoid errors of judgment into which I might otherwise have fallen.

In regard to the use of phthalein as a test of kidney function: Many of these people have a large flabby tongue which is very dry. Their kidneys put out much water, but not much of anything else. The intramuscular injection of phthalein shows a very striking delay. Nothing may appear of this drug in the urine for half an hour, three-fourths of an hour, even one hour, but if you will inject this drug into the circulation—into a vein, then it comes through promptly, almost normally. What does that mean? It means that the kidneys are more nearly normal than the rest of the body. The kidneys are pretty good, but the rest of the patient is no good at all. So do not be carried away by the appearance of good function, because these patients will die of any one of half a dozen causes referred to other functions. This is a matter which will bear further discussion.

One point in regard to the management of these cases after the removal of the prostate, because I find myself in disagreement with many others: Dr. Lewis and Dr. Mark use the Hagner bag. I use it also, and I regard it very important, because these people, before the days of the Hagner bag died of bleeding. I do not use the term **hemorrhage**. They do not die on the table, but in the next 24 hours, they lost an amount of blood beyond their total capacity. They are like children, they cannot bear the loss of blood. There are only two methods of satisfactory and absolute control of bleeding in these cases. One is the method of suture which is used and advocated by the Mayo brothers, and particularly Dr. Judd; and the other is by the Hagner bag. Saying that they do not bleed very much is nonesense. I think I was one of the early people to use the method of suture in these cases and I introduced Dr. Judd to the method. I have abandoned it. He has used it and with great skill; but it prolongs the operation and subjects the patient to a great deal of exposure, but that bleeding must be controlled. If you are prepared to use sutures, well and good. If not prepared, do not make a long and capital operation. Use the Hagner bag. Do not be blocked by the articles which are appearing from the very elect all over the world saying that they do not bleed. They do.

Dr. W. J. Wallace, Oklahoma City, Okla.: Statistics give 40 per cent deaths due to uremia, that being the greatest cause of deaths. This being the case, it is unquestionably the thing to follow the rules laid down so beautifully by Dr. Lewis—do the two-stage operation. I am glad to hear something about the catheter and the length of time it should be used. I think we make a mistake in the time of any control of the catheter. I know I have. The patient becomes impatient; he complains of pains and wants the catheter out of the way, and we are inclined to go ahead and take a chance in doing the first stage when we should not do it.

As to the tests—either the phthalein, or the blood chemistry, or the retention tests; in my experience I have had very little satisfaction from the phthalein, especially on account of large trabeculated, diverticulated bladders. I am depending more upon the retention tests, the non-protein nitrogen, the creatinin, and the rest.

Dr. Bransford Lewis (Closing): The decrease of the death rate is not because of operative technique, but because of the better preparation of the patient, the better care during the operative stage, and better after-treatment. If this is the case, then there is no denying the fact that it is worth while to adopt and carry out these measures that have improved mortality, and it makes a dividing line between the surgeons who are conservative and those who are willing to sacrifice the interest of their patient by plunging in and operating, and thus having a dead patient. My paper is to accentuate the importance of the various methods of preparation, and to show that in the interest of conscientious work absolute devotion to that feature be demanded.

The catheter is often inserted too far, impinging against the posterior wall of the bladder, and irritates by rubbing. Avoid this by inserting till the fluid runs out. Gradually withdraw until the flow stops, then shove it back about one inch or so until the fluid runs again. Keep it at that point; the patient will then be comfortable, and may even go about his business. Plug the catheter with a wooden plug, to be released according to directions, and as soon as he is stabilized, poceed to the first stage with impunity, and without shock. Watch your patient, and when conditions are right, do the second stage.

Fixation sutures are important to close the prevesical space. There are often twenty minims in an ampoule of phthalein, Dr. Mark is right. Use 15 minims, or 1 cc. As to the failure of phthalein absorption from muscular tissue referred to by Dr. Cabot, I shall be glad to make observations in the future. It is true that most deaths are from causes other than urinary tract. It points a good lesson. One case died of paralysis of the bowels.

We must make this operation safe, whether the patient is 60, 70, 80, or 90 years old.

Triple Brass

¶ A doctor's night bell rang, and he rose in professional haste and went to the window.

"Doctor, can you inform me," asked the man on the step below, "if the physician next door makes night calls? I've been ringing his bell for ten minutes, but no one answers."—Wayside Tales.

Over His Head

"No," replied the doctor from the window, "he does not make night calls, but I will telephone for a doctor for you, and then I will get out my car and take you home. I am very glad to have met you. I have been studying the three biles lately and you have succeeded in proving that they can be exhibited."

¶ Do not fail when treating epileptics to eliminate all salt from the diet.

A PLEA FOR THE INSPECTION AND STANDARDIZATION OF ALL THERAPEUTIC APPARATUS BY A BOARD OF EXPERTS AND ENGINEERS

By F. F. BURDICK, Chicago, Illinois.
Of the Burdick Cabinet Company.

Gentlemen of the Association: Mr. F. F. Burdick felt the compliment of your invitation, and was so personally gratified that the acquaintance formed in the exhibit room has ripened into establishing the personal element of contributor to the scientific side of this meeting that only the event of his serious illness kept him from filling the appointment in person. To such an extent was Mr. Burdick anxious that this hour be filled that he has intrusted me with his message, and you in turn have been courteous to me, a stranger, and non-resident, to permit me to say this word as from him.

Mr. F. F. Burdick is a man who was born with a vision and a purpose in life. If you elect to know the man as a manufacturer alone, you will miss the quality of his goods, for I am here to say that the welfare of every patient, who comes under radiant light influence in a clinical way, is with him his greatest concern. If what he is offering is not right clinically, he will have nothing of it.

His vision is clear, it is many sided and the purpose for which he lives is both utilitarian and humanitarian. I know the man, I marvel at his inventions and admire his genius, but his heart for humanity is bigger than all else. He challenges respect for he respects himself.

"Correlate all of light energies and make them count for the good of mankind, and for the sick man in particular." This was his message to me a year ago. It was a little inkling of the mind of the man and a glimpse of the vision he had.

"The great thing is not the machine, but the good it will do." "Some day," Mr. Burdick said, "I hope to see three great clinical centers established for treatments with light energies. I would locate one on Long Island, New York, where the poor of the great city of New York can be treated. Another I would place in the middle west near some great city for the same grand purpose, that all the sick may have a chance to use radiant light. The third would be on the Pacific Coast, not near a city except for the transportation but where surrounded by the charm of the air, the sky and the beautiful country, also the luxury of the ever present sunshine and the out of door plus the indoor radiant light, so that there might be one place that the incurables may find a home and be furnished with all the comforts of life, and with the aid of the clinical apparatus some lives could be made sweeter and their purposes glorified. This was a part of his vision.

When the X-Ray apparatus was first exploited and offered, Mr. Burdick presented it to hundreds of physicians as a salesman. There was no reason for his departure from this commercial field, save this fixed vision. I first met Mr. Burdick when he had under his arm a folding bath cabinet, his vision also, not alone for its commercial possibilities, but as he said a light bath in every home. To think of the hygienic gain to health and happiness of this could come true. That folding cabinet bath vision has not faded but waits.

Mr. Burdick's deep religious convictions and practice led him to live in a small community where few friends give a little financial support to his enterprise. It was a place where he could begin his work. He knew the principles of application by long years of experience in electrical study and construction work. He knew only the best was good enough.

His shop took on modern methods, materials must be the best and workmanship was required to come up to standard, this was his vision of finished products. The war came—Mr. Burdick gave the shop to its capacity, and the military hospitals during the war were keen for his supplies and in the reconstruction work with crippled soldiers, a steady stream of apparatus is finding its way to Government hospitals.

It was a part of his purpose to serve wherever he could best serve. His inventive genius was equal to war demands, of that period.

I wish you knew the genius of the man, outside of your own estimate, through his wares. He knows the medical profession well. He knows its needs. "Tell me," said he, over the wire just a short time ago, "is the time ripe to recommend that each city and each town shall have a light cure for all its people? Not a single piece of apparatus, but all the apparatus installed under one roof—a new departure and to be administered with skill as is now demanded from the X-Ray operators." It has been my vision to see the clinic, such a part of every place and the needy will share equally with his luckier neighbor the benefits and luxury that light can afford each. I have not spoken a word of praise, for a bit of such would be out of place—the man doesn't need it—Mr. Burdick is entitled to a just place as a man who has already won a place as a clinician, a man with a purpose that is ethical and honorable, a genius who is willing to serve his fellow men.

I am here to voice the expression of this servant of light-energies, who at this time is prac-

A paper prepared for the Western Electrotherapeutic Association, Kansas City, Mo., April 21, 1921. Read by E. S. Bailey, M. D.

tically interested in the tissue research work, not alone the blood as a tissue, but a subtler one of the reaction on the so-called solid parts of the human body. What part does the light actually perform when it shines upon the body, and a result follows, sometimes an immediate one, and sometimes a remote one? Where does the direct action of light leave off, and where does the so-called reaction establish itself? Who knows when the dosage has been enough or where it falls, that of the best opportunity for getting the best chemical response to the exposure, or who knows at the time of an overdosage, and are their physical signs yet to be found where the tissue response will be like the clock? A time to stop—a time to shade off—a time for re-application? I know of the work and worry that is going on right now to measure or try to find the unit of tissue resistence, and the exact dosage.

Sometimes the doctor's skill is taxed to supply or withhold the exact dose in medicine. It is a fair cry when the profession turns and asks, or demands the exact directions for use, a printed formula of procedure, a demand for precise accurate, and safe dosage for visible action or invisible, reaction. This is so important and so valuable in a clinical way that such problems are not to be passed up carelessly but must be solved in the most exact and painstaking manner. Chance treatments are taboo. That time has passed.

It is not so easy to talk or print when a fact is in the process of development, as it is when it has been solved and the proof of its perfect solution is at hand for immediate application or verification. This is a doctor"s professional problem as well as a manufacturer's. The field of reactions is a serious one, when solution is determined only by fact.

The technic that is of the highest importance is the one that gives the best results. Every time the hard and fast lines of technic are dependent upon certain factors that have to be considered—and I am speaking of the highest possible technic that can fall to any operator—upon the condition that the apparatus in use is standardized, it must have been perfected to its highest form of usefulness, then its use can be relied upon in any possible, systematic way. The technic then falls into the line of perfect development, exact measures that can be computed and provided in any treatment.

I hope the time will come when there will be, instead of the game of politics and prejudice, that a professional unity will develop by the parties of the first part—the physiotherapists, who use the applicators, and the parties of the second part—the manufacturers, who supply the good. The haphazard application of the theorists are not solving the great problem. Is it not possible for a professional interest to develop it? Is not this society strong enough to put its work of approval upon these things that are fast tending to either make or destroy the values of the apparatus that seems destined to carry on the great work of the future?

1. The standardization of apparatus.
2. The exactness of a perfect technic.
3. The acceptance of tissue resistence as a guide.

It is to be hoped that any old standard is now acceptable, the most of the societiy's' approval would enhance the confidence of the community in the operator when it could be shown, that a body like this one would signify its approval of the best obtainable. Such a work as it would make, would be a positive value.

Another plea is the co-ordination of the various systems of physio-therapy into one strong, progressive organization, building up into a popular understanding of the great values that reside into parts. This form of organization would cause existing parts to have their proper place. It would not mean exaltation of one part, to the detriment of another, but rather, all parts are equally valuable. They would simply find and keep the allotted place in the scheme given to them.

In recapitulation, the points are those to which attention here is particularly invited:

(1) Research for development of the Unit of Tissue Resistance and the Unit of Dosage.

(2) Standardized Method of Technique.

(3) Standardized Equipment.

(4) Professional Unitey in the Development of this great subject of Physio-Therapy.

(5) Co-ordination of the various systems of Physio-Therapy into one strong progressive organization for the accomplishing of those ends.

(6) Establishing of a Board of Experts and Engineers for developing the essential standards and units, which equipment, methods and technic, can be standardized upon a scientific basis. This Board would constitute the engineering authority for approving or rejecting any pieces of equipment entering the medical market, in much, if not exactly, the same way as the National Board of Fire Underwriters now approves or disapproves electrical or other equipment entering the market as affecting the public interest from the fire and physical hazard standpoint.

This Board would develop a Code of Standards to be published as a guide to all manufacturers, and as a guide to practitioners, the same as the National Board of Fire Underwriters now is doing. The doctor in the country not familiar with eqquipment essentials, would in this way be as secure in making his purchase as the doctor best informed in the city location. He would purchase only that equipment which

had received the label of approval of the Board.

In this way, and only in this way, can direct progress be made by all to a common destiny of success in this subject, placing the subject quickly upon a dependable, scientific, ethical basis. The quack who advertises super-methods will automatically be eliminated, and the triumph of the subject assured.

A SHORT CONSIDERATION OF THE MORE MODERN DEVELOPMENTS IN CHROMOPATHY

By EDWARD PODOLSKY,
Brooklyn, N. Y.

CHROMOPATHY, which is by no means a new branch of the healing art, has in the last few years undergone a series of important developments. It has become firmer established as a science, and more vigorous research has been carried on to discover new truths in this method of healing. These procedures have freed chromopathy from a great deal of its former undesirable features, and has made it more acceptable to modern medicine. Chromopathy has brought out several positive facts that are accepted today. Only these deserve consideration.

Colors may either correct an abnormal existing condition, aggravate it, or have no effect on it whatsoever. In the first case the right color in the right proportion may affect a cure, while in a too small dose it has no effect on the condition. It may cause harm if given in too big a dose, even as an overdose of an opiate has an ill effect. In the second case the application of the wrong color may have a disastrous effect on the person. Also, wrong proportions in color treatment may be equally disastrous as the careless application of medical remedies. In the last case, there are abnormal conditions that will not yield to any color treatment that may be devised. It is thus seen that color-healing is not haphazard as of yore; it is governed by very definite principles.

Colors act in three different ways: as a stimulant, as a sedative, and as a recuperative. By means of its vibrations color influences the human frame. When color vibrations effect the brain it gives rise to varying corresponding sensations in the body. When these vibrations effect the mind only, they are of purely mental and emotional nature.

There are many hundreds of recorded cases that show the therapeutic effects of colors on the human body. Among them the following are of special interest, because they represent what may be done in various abnormal conditions. The first three demonstrate the decided influence of colors on the human mind which eventually influences the body (for better, or for worse), and the following two are of a physical nature.

Case A. A soldier sustained severe shell shock in Flanders. His nervous system became seriously affected, and the sudden closing of a door, and an unexpected voice caused nervous prostation. Gradually his mental ability became atrophied. In consequence of this depression seized him and he gradually grew worse. He was admitted into a hospital and placed in a color room, the governing idea of which was sunlight. The room suggested the open fields, and the color scheme was that of spring. The ceiling was blue, the upper portion of the walls was yellow, and the lower portion light green. The floor covering was of green felt toning with the colors of the walls. The window hangings were of a deep yellow, and the artificial light was diffused by means of orange electric bulbs placed around the walls behind a cornice. The patient lived in this room for several days, supplied with light literature and appetizing food. Within several weeks no one could any longer recognize the patient as the nervous wreck of formerly.

Case B. A young officer as a result of the horrors he had passed through, received a severe shock to his nervous system which assumed the form of acute insomnia. The color scheme of the private ward used in this case was carried out in mauves, blues, and greens, which have a decided sedative effect. The patient entered the ward in the morning and spent the whole day there under the influence of the color scheme. That night he had his first unbroken and refreshing sleep since the advent of his nervous derangement.

Case C. A young woman was subjected to very severe periods of melancholia. As red has a stimulating effect, a red room with red lights was made up. When the subject felt a fit of melancholia coming on, she went into red room and turned on the lights. The melancholia was dispersed. She then passed into a room the cholor scheme of which was carried out in yellow and gold, a combination producing a mild stimulation. This brought her back to her former state of mind.

Case D. Mrs. C. V. Hunt of Cincinnati had a knee bent by anchylosis and anchylosed by rheumatism. She was put into a solor-sweat-bath (thermolume). The knee was as cold as a corpse and could not be made to prespire until red light was put over it, when immediately the blood kindled into new life over the entire body. The leg was entirely straightened out in the second application.

Case E. Mr. E. of Vineland, New Jersey,

was cured of rheumatic anchylosis of the shoulder by thermolume baths and some massages in two or three weeks. Red glass was used over the part.

Colors possess their various virtues individually or in combination. Much the same way as with drugs they may be combined to attain a certain desired effect. A short list of the more common colors and their effects on the human economy may well be considered.

RED. This is a stimulating color of high standard, which excites and increases the working power of the brain. Too much can disturb the mental balance of delicately poised minds; the circulation of the blood is quickened and melancholia is dispersed. Red is also invaluable in the treatment of paralysis and other dormant and chronic conditions. It is, however, injurious when there is an inflammatory condition of the system.

YELLOW. This color is cheery, stimulating, and re-energies the brain. It suggests hope and sunlight, and is very useful in convalescence. According to Dr. Babbit, yellow is also effective in alleviating and curing hemorrhoids, colds, paralysis, and chronic conditions. It is the central principal of nerve stimulus as well as the exciting principle of the brain. It is not as violent a stimulus as red. Yellow is harmful in cases of fevers, acute delerium, inflammation, neuralgia, and palpitation of the heart.

BLUE is a color possessing cooling, sedative properties which, to some people, are depressing. If it is used in too large quantities it is capable of producing melancholy, therefore being useful in reducing cases of excessive excitability. It is also effective in the reducing of inflammation and useful for allaying neuralgia.

GREEN. This color possesses cooling properties, which is useful in nervous diseases as it subdues excitability. It acts as an opiate and counteracts the brightness of the sun. It excites the eye less than any other color, even black, and induces repose.

BLACK is a color not necessarily depressing, and is useful for toning strong colors. It should therefore always be used in combination; alone it is depressing somewhat.

WHITE. White is a cheering color which attracts sunlight but, if used alone, is cold. Combined with red, yellow or orange it is stimulating.

BROWN is restful and warming in quality, but if used alone tends to have a depressive effect. It is very useful in combination with orange, yellow or gold, when it suggests sunlight and counteracts melancholia.

PURPLE AND MAUVE are sedative and soothing and productive of sleep. They concentrate and are very useful in cases of mental instability.

GOLD is a bright, cheerful color, useful in convalescence, while GRAY depresses and suggests cold.

The following colors have proved beneficial in cases of neurasthenia and shell shock, as shown by recent research along this line: Sunlight-yellow, sunlight-primrose, firmament-blue, spring-green, anemone-mauve, and apple blossom-pink.

It would require a volume of no small proportion to continue to enumerate all that colors may do in certain abnormal conditions of the human body, for so great and careful has been research in this science. There remains little ground to doubt but that this method of alleviating certain diseased conditions will soon become a part of the general art and science of healing.

LOCAL SYMPTOMS OF RECTAL DISEASE

CHARLES J. DRUECK, M. D., Chicago.

Professor of Rectal Diseases Post Graduate Medical School and Hospital.

PAIN IS often the symptom which brings the patient to the physician ,and because of the abundant nerve supply to these parts many lesions cause agony. The patient's statement that he has pain in the rectum must be qualified.

Pain of a deep abscess is often indefinite as to its exact location. An ischio rectal abscess may cause a sharp pain simulating fissure of a bruised, inflamed hemorrhoid.

Pain is much more acute at the muco-cutaneous junction and is progressively lessened as higher levels in the rectum are reached. A sharp cutting pain refers to the anus while a dull constant pain refers to the rectum.

A feeling of fullness after the evacuation or a desire for further action may indicate proctitis or non-inflammatory tumor, such as a hemorrhoid.

Pain coming on with defecation and lasting for some time afterward ,especially if sharp and cutting, suggests ulceration of the anus.

A throbbing pain indicates abscess.

A dull, aching pain, made worse by exercise or mental worry and shooting toward the prostate means congestion about the anus and probably means hemorrhoids, and the prostate may not be at fault. This same neuralgic pain may follow any pelvic operation when congestion occurs.

Pain over the coccyx increased by pressure upon or movement of the coccyx suggests coccygodynia.

Pain in the back may mean prolapse, fecal impaction or cancer.

Painful points on either side of the sacrum at its junction with the lumbar vertebrae, especially if associated with a dragging and burning sensation in the left iliac region or lower abdomen, indicates intussusception of the sigmoid.

A burning pain indicates ulceration or acrid stool or free bile in the stool.

Pain shooting down the legs and in the lumbar region indicates cancer or ulceration of the rectum.

Sharp cutting pain occurring during constipated evacuation and followed by a swelling at the anus indicates a thrombotic hemorrhoid.

Pain on standing or walking indicates fistula.

Pain in the left inguinal region is significant of affection of the sigmoid and must be differentiated from ovarian disease and left sided appendicitis. The iliac roll or sausage shaped roll occurs in chronic sigmoid diseases.

Pain constant but made worse by defecation indicates a blind internal fistula.

Pain in the anterior median anal commissure may be a fissure or it may be reflexed from the urethra, prostrate, or bladder, or a retroverted or retroflexed uterus or a prolapsed and inflamed ovary in women.

Pain, constant, intense, burning and confined to one or two spots indicates hyperesthesia or hysteria of the rectum and may be mistaken for the pain of an ulcer.

Pain, cutting, throbbing or heavy and felt within the rectum is almost surely due to acute catarrhal proctitis.

Pain high up in the sacrum, dull, aching and constant, suggests fecal impaction.

CHRONIC PELVIC INFECTIONS: A most difficult class of women patients to diagnose are those with pelvic pain without well defined pathology. Mistakes are commonly made in such cases, as the pain may be due to pathologic states that cannot be detected on pelvic examination, or the patient may have or complain of pain without the presence of pathology in the pelvic organs. Adhesions may involve the uterus, intestines, ovaries, tubes or pelvic peritoneum, and may be so located as to escape detection on pelvic examination. It is therefore easy to appreciate that any examination which will put such adhesions on tension will be attended by pain. This fact can be utilized in the diagnosis of such cases.

DISCHARGES: The functions of the colon, sigmoid and rectum are now to be inquired into. The character, amount and consistency of the feces is important, and also its color, whether gray, brown or black. The regularity and frequency of the evacuations and whether constipated or diarrheal, or if there is straining at stool. Discharges of blood, mucus or pus are next considered and whether they are mixed with the feces or streak its surface. Blood occurs in the feces in a great many conditions and its character and color are important. It may be slight in amount, or it may be so profuse or persistent as to endanger the patient's life.

Blood forcibly projected, red in color and occurring with the bowel movement, indicates ulcerated hemorrhoid.

Blood dripping, bright in color, occurring with the bowel movement, indicates a venous hemorrhoid or an ulcer.

Blood occurring in small amount on the toilet paper after the bowel movement indicates an ulcer or a fistula.

Blood, dark in color and occurring mixed with the feces, suggests a cancer higher up.

Blood with constipation, especially if the symptoms are relieved after the hemorrhage, indicates acute intussusception.

Blood with pus, mucus and tenesmus indicates cancer, stricture and ulceration.

Blood streaking the feces, also diarrhea and a frequent desire to defecate, indicates polypus.

Free hemorrhage suggests ruptured varicose vein, injury, foreign body in the rectum or intussusception.

Typhoid fever, yellow fever, malaria, purpura, scorbutis and heart disease may be accompared with bleeding from the rectum. Blood from the stomach or small intestine is incorporated with the feces while blood from the sigmoid, rectum or anus often is expelled independent of the fecal mass.

PROTRUSION: Protrusion at the anus may be one of several things. It is therefore essential to know whether the tumor recedes of itself or must be replaced and whether the replacement is difficult or painful, and also does the extrusion occur during defecation, or is it continually exposed, or can it be produced at will by straining? It is important to ascertain the character of the protrusion, whether smooth or nodular, hard or soft, or covered with rugae and whether it is tender or sensitive to the touch, and are there any ulcers? The protrusion may be a hemorrhoid, the senital pile of a fissure, polypus, prolapse of the rectal wall, papilla, villous tumor, carcinoma or sarcoma.

An external hemerrhoid is small, bluish and tender, arises suddenly and cannot be placed within the rectum.

A venous hemorrhoid must have existed a long while before it will prolapse. Therefore a

large tumor of recent development cannot be a venous hemorrhoid.

A polypus usually comes down when the patient strains, and when replaced is not expelled until further straining, and is attached by a pedicle. When a large size (third degree) the tumor is cone shaped and marked with concentric rings and there is a sulcus around the tumor and between the rectal wall into which the examining finger may be introduced and passed around the tumor.

Prolapse of the rectal wall, either complete or partial, may or may not remain within the rectal cavity when replaced, but a prolapse has always an associated straining pain and a feeling of fullness in the rectum.

When the prolapse is of small size and incomplete it closely resembles large swollen hemorrhoids.

Malignant growths are hard, cauliflower shaped masses and they protrude only when forced down by the straining accompanying the passage of hard feces.

Carpings of the Cynic

It Pays to Advertise—Yourself.

DO YOU recall that old story about the man who lived in the woods—who built a better rat trap—the world found him and tramped down his grass and beat a path to his door, 'n'everything.

Well, I take it from this plain tale, wherein is parked an inspiring thought, that there are several more things equally true that may be read between the lines.

Doubtless this man had got up a fine eight-day rat trap, though the world seemed all fed-up on rat traps! But, no matter, this man went on up in the woods, built his cabin and perfected his modern rat trap.

One day, once upon a time, a visitor came along in his rattle trap auto and the rat trap man took the chance to practice upon his salesmanship speech; so he sat out the pork and beans and hot java and then showed the stranger the fine points of his high-powered, easy-driving, self-starting rat trap. Note this: When the stranger left he carried along a souvenir that the rat trap man gave him—for he always donated very excellent rat traps in singular enthusiasm.

Next day some hunters chanced that way. Seeing the smoke curl from the chimney in the cabin they holloed out the sole occupant. They soon got acquainted, and when the hunters asked for a match, the rat trap inventor took them in, gave them matches and showed them the hair trigger, rim fire, smokeless, maxim silencer rat trap. When they left he gave each a souvenir, for he always donated very excellent rat traps in simple expectation.

The next day it rained!

That night a tie buyer rode up to the cabin and asked to stay all night. In the morning they went out to examine the timber. The tie buyer said seldom had he seen such fine timber—but that it was not good for railroad ties but would make excellent rat traps! About ten o'clock he bade the cabin good bye and rode away; sure!—he always donated very excellent rat traps in sincere expectation.

In a few days some surveyors came through, driving stakes for a railroad which was already building and which would miss the timber by about a country block.

The rat trap man took them in hand, explaining the blue prints for his cantilever pilasters, controlled by levelling screws under the vertical trusses of his rat trap. When they rode away they had a donation—v e r t i s e.

When the man came to locate the dam for the mill and power site, they set up a camp near the cabin and soon became well acquainted with all the merits of the turbin-driven, self-loading automatic buzz saw rat trap,—each and every man carried home with him a d v e r t i s e.

When the architect came from the city to get the lay for the factory he went home with a nice block of stock in his pocket.

The newspaper reporter who wrote up the big doin's was presented with a diminutive rat trap for a watch charm and a share of stock.

The landscape gardener who laid out the walks and put up the signs to keep people from tramping out the grass, gave an order for 1,000 gross of rat traps for his brother who ran a chain of five and ten-cent stores if any.

The doctor who sat in his office in the big, new, rat trap factory building, reading the magazine account of how the man who got up a better rat trap away up in the woods where the world found him and beat a path to his door, said, "I'm a hell of an advertiser! I never in my life advertised my typhoid treatments, nor slipped in the fact that I never had had a septic childbirth, nor lost a mother in confinement, nor that I needed money for my bills or taxes; and here I am away up here in the woods, a camp doctor!—scat!—that damn cat! to hell out-o'-here! If I don't sell some of these angora cats pretty soon I can't feed 'em!"

Moral: The legitimate physician needs to give himself more publicity—not advertising. —H. N. J.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald
and Electro-Therapist
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The Editors' Forum

Rockefeller Foundation Service in the Philippines

THE Rockefeller Foundation announces that the International Health Board has accepted an invitation to co-operate in carrying out the general scheme of re-organization of the public health activities of the Philippine Islands, which was recently made public by the president of the Senate, Manuel Quezon.

The participation of the Board will consist in lending the services of certain members of its staff for a limited period and providing specialists as consultants and assistants to Philippine Government officials in various lines of public health work. The broad program which the Government has adopted for improving health conditions includes the ultimate consolidation of all health functions in a single department of health to correspond with the ministry of health in other countries.

Among the persons whose services will be furnished by the Rockefeller Foundation is an assistant to the dean of the College of Medicine and Surgery of the University of the Philippines, who will assist in developing the medical school and will give particular attention to the problem of providing post-graduate instruction in public health so that the health workers so urgently needed in the Philippine Islands may be trained locally.

Fellowships for advanced study in the United States will be offered by the Board to exceptionally promising and well qualified young Filipinos, to fit them for the more important administrative and technical positions in the public health service and for positions as instructors in the College of Medicine and Surgery and as teachers of nursing.

Existing facilities for the training of nurses are inadequate to meet the demand for hospital and private service. The nursing situation will therefore be studied and special attention given to training women in public health nursing.

As one important part of the plan, an assistant will be provided for the Director of the Bureau of Science, who will be expected to advise in the further development of that Bureau, which has already made notable contributions to various scientific problems. The Biological Laboratory, which is one department of the Bureau of Science, is to be expanded in order to serve as the central public health laboratory of the Philippines, with local laboratories in the provinces.

Dr. Victor G. Heiser, Director for the East of the International Health Board, and formerly Director of Health for the Philippine Islands, who is now in New York, will go to Manila in February to assist in carrying out the program.

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Change of Date— American Congress on Internal Medicine

THE sixth annual session of the Congress will be held at the Mayo Foundation, Rochester, Minn., April 3 to 8, 1922. Program will be issued shortly. Dr. Sydney R. Miller, Baltimore, is the president of the Congress. Dr. Frank Smithies is secretary-general, 1002 North Dearborn Street, Chicago. The Chicago Great Western Railway runs a daily through sleeper to Rochester from Kansas City. Reservations should be made early for this meeting so that the proper number of cars may be provided for the delegates.

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¶ Before you lend yourself to the interest of the big brewery ask yourself the question if there is anything in beer more helpful than many medicines you may prescribe and if a three-ounce bottle of I. Q. S. won't do more than a case of beer and produce no habit nor harm in the world.

Men of the Missouri Valley



DR. PAUL E. GARDNER
New Hampton, Iowa.

THAT the Missouri Valley Medical Society has made a wise choice in its selection of a president this year is evidenced by the fact that Dr. Gardner has also been elected president of the American Association of Railway Surgeons. Fundamentally of the Abraham Lincoln type (although not so physically), the doctor had the distinction of being born in a log cabin 48 years ago, on the classic banks of the Wapsie, Fayette County, Iowa. His 200 pounds of avoirdupois testifies to the fact that Iowa is the banner dairy state. He was graduated at Iowa City in 1896, practiced at Hazelton five and one-half years; 20 years ago moved to his present home at New Hampton, Iowa, where he still is a moving spirit in medicine. He has been an active member, and has held other offices in the Missouri Valley for many years. He is a living testimony the fact that any man who occupies a fr seat, takes part in discussions, writes pap and helps push the society along, eventu becomes its presiding officer.

Let all men who have ambitions take tice. There is no better formula. That will have a good meeting in St. Joseph g without saying. St. Joseph doctors always operate harmoniously, which with the exe tive energy of Dr. Gardner, insures a ban meeting in September.—J. M. B.

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Hornsby's Hospital Magazine

THE initial number of Dr. Hornsby's H pital Magazine has been received an very husky youngster it appears to Dr. Hornsby has the happy faculty of conv ing his knowledge to the reader in such a w that it cannot be misunderstood. His ma zine, which is devoted to the every-day pr lems of hospitals, will meet with a spontane response from the army of hospital worke who look upon Dr. Hornsby as the best post man in this line of work in the country.

Dr. Hornsby very generously has placed the disposal of his readers an invaluable ex rience of forty years as a "hospitalarian." offers through his magazine to answer questions, knotty problems; iron out wrink of care; make suggestions as to proper metho and technique, give practical advice regardi financial questions, and all this for $1.00 p year, which is the subscription price of his ve clever magazine.

We are pleased indeed to welcome Hornsby to Kansas City as a citizen, and believe that Kansas City is honored by presence. He has chosen Kansas City as home because he believes it to be the logi center of medicine and surgery for the gre Missouri Valley and Southwest. He h opened a hospital in this city which is to ser a definite purpose in the Missouri Valley dustrial Hospital Association which the doct is organizing in Kansas City. We advise o readers to procure a copy of the doctor's Ja uary number and read carefully the first arti on "Medicine for the Masses" in which the pl is outlined and in which some forty membe of the local profession are interested.

The Cooper Clinic announces that it h added to its staff Dr. A. A. Blair, director laboratories. First National Bank buildi Fort Smith, Ark.

¶ Deaths do occur after a single dose of A phenamine; probably from Nephritis due arsenical poisoning.

Lost and Found

Used to believe in Medicine,
Drugs and Everything;
Used to think the good old
Family Doctor could raise the dead.

Later I was told that it was all
In the way you thought,
And in the relation of your bones
And the impingement of your nerves.

LISTEN—today I saw a man,
Feverish and toxic;
His skin hot and dry;
His tongue parched:
In twenty-four hours
Calomel and Pilocarpine
Had made a complete change in him.

✣ ✣ ✣

I saw a man whose nostrils were horribly ulcerated and eaten by Syphilis. One dose of Salvarsan changed this man and gave him hope.

✣ ✣ ✣

I saw a strong man sitting on the edge of the bed, pumping for breath through his asthmatic tubes: Given by hypo 15 m of Adrenalin and he went to sleep.

✣ ✣ ✣

I saw an adolescent goiter cured with Iodine; a Poison Oak cured with Quinine; A skin cancer of the nose cured with Arsenic—

✣ ✣ ✣

Once more I believe in Medicine, Drugs, the Family Doctor and everything.

—Harry Nelson Jennett.

(Apologies to Florenz Clark.)

¶ Dr. Chas. H. Hopkins, age 45, Kansas City, Mo., died in Los Angeles, Calif., September 13, 1921, as a result of having been gassed in the World War.

✣ ✣ ✣

¶ Dr. J. P. Ham, of Yuma, Colo., says there is no dearth of doctors in that state, and that half of those there now could do the work.—Clin. Med.

✣ ✣ ✣

¶ One of the large insurance companies shows that suicide has increased 26 per cent in 1921 over 1920. From 1911 to 1915 the suicide death rate remained stationary.

St. Louis Physician Heads Health Board.—Dr. R. S. Vitt of St. Louis has been elected president of the State Board of Health to succeed Dr. Emmett North of St. Louis. Dr. E. E. Brunner of Farmington was elected vice-president of the board. Dr. Cortez F. Enloe of Jefferson City was re-elected secretary of the board, having been first named to the office last June. The board will hold an examination in St. Louis January 23, 24 and 25 for medical students who desire to practice medicine in Missouri.

Correspondence

ELEPHANTIASIS CHYLURIA IN HONOLULU

Editor Medical Herald:

In reply to your inquiry regarding my trip, would say, briefly, that I had the "time of my young life."

After my two weeks fishing for trout in British Columbia I went across to Honolulu from Van Couver on the S. S. Niagara on business and visited Dr. Howard Clark, ex colonel of the medical department, and my old classmate, Dr. Rudolph Benz, of that place. The medical profession of Honolulu is dealing out top-notch stuff. I saw quite a lot of interesting cases of tropical medicine, viz: different forms of filaria san guinis hominis, e. g., the elephantiasis chyluria, etc., leprosy, etc. Among those who are working with the latter they are not so sure that chaulmoogra oil will produce lasting cure. Many believe the bed-bug to be the transmitting agent of leprosy.

The Honolulu clinic, of, which Dr. Clark is the eye, ear, nose and throat chief is doing excellent work. The men are high class individuals. Honolulu is the cross roads of the Pacific and all trans-Pacific boats stop there. It is well called the Paradise of the Pacific. I stopped at Los Angeles for the week end with father and mother en route home. Came back on an American boat, the Manona.

Yours truly,
JOHN W. SHUMAN.

Sioux City, Iowa.

CALCIUM CARBONATE—PRECIPITATED IN THE COLD

Editor Medical Herald:

It has long been assumed that Calcium Carbonate should not only be an excellent antacid and internal antiseptic, but should also be an ideal remedy in hepatic disorders arising from acidity, rheumatism from the same cause, inanition, chlorosis, glandular enlargements, fistulous ulcers, enlargements of the liver with jaundice, acid urine, abdominal dropsy, diarrhoea of undigested stools, vomiting of sour food or curdled lumps, acid dyspepsia, and in conditions of low nutrition.

But in general practice calcium carbonate has been found to disappoint for reasons that have not been accounted for until recent researches have revealed the fact that this product as usually found on the market, while in every respect chemically pure, occurs in the form of prismatic rhombohedra by no means

suitable for medicinal use, being not readily attacked by acids, and the greater part of the same when ingested will pass through the bowel unchanged and unacted on by the acid secretions.

When calcium carbonate is prescribed, the form precipitated in the cold should be ordered for while this process yields less than half the quantity produced by precipitation from hot liquids, yet the cold process produces a light hydrated carbonate which is an impalpable powder showing no crystalline grains under high magnification, and which quickly neutralizes any acid solution however mild it may be.

This amorphorus calcium carbonate and the salts which it forms in the stomach and bowel, although not astringent, are not in the least laxative, thus making calcium carbonate, precipitated in the cold, especially available in relaxed conditions of acidity where sodium, potassium and magnesium salts are prohibited due to their hydragogue effects

Calcium is always indicated in low conditions of the nerves and generative organs, and no better form can be found for its exhibition than amorphous calcium carbonate, which is also of great value as an application to burns and ulcers which it mildly stimulates while it absorbs and neutralizes the ichorous discharge, and prevents the latter from irritating adjacent skin.

We have gone into this matter very thoroughly due to the insistence of several physicians, and are prepared to furnish on your orders a very pure calcium carbonate, amorphous, precipitated in the cold, and would commend this item to your attention due to the very satisfactory results observed from its use. There is practically no limit to the dose and this form of calcium bids fair to supplant all other calcium salts and many alkaline chemicals used in internal medicine.

Truly yours,
ALBERT N. DOERSCHUK.

Endowment Scholarships.—The New York Post-Graduate Medical School and Hospital announces that there are now available several scholarships under the terms of the Oliver-Rea Endowment. The purpose of the Endowment is, to further postgraduate medical education by awarding scholarships to practicing physicians of the United States. The scholarships vary in amount but are sufficient to defray in full or in part the tuition fees of the Post-Graduate Medical School for the courses offered. According to the wish of the donor, physicians in the State of Pennsylvania will receive preference in the award of these scholarships. Application may be sent to the Dean of the New York Post-Graduate Medical School and Hospital, New York City.

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

THE MAXIMUM DOSE IN ROENTGENOTHERAPY; FROM A BIOLOGICAL VIEWPOINT

By PROFESSOR HOLZKNECHT

(Address delivered at the Berlin Roentgen Congress and at the Association of Physicians of Vienna.)

In directing attention to the means and methods by which many distinguished investigators have met with great success in the Roentgen Ray treatment of malign tumors, it is possible to express the essentials of these methods in an extremely short formula conveyed by the definition "Maximum dose." The administration of maximum doses necessitates recourse to quite modern Roentgen apparatus, there being now marketed a number of various types apparently of equal value. When we consider the remarkable results that are achieved in the treatment of malign tumors through these newer efforts, it is entirely obvious that similar modes of therapy would be applied in the treatment of other conditions likely to be influenced by the X-rays. However, in this allied application, certain failures are encountered; but since the method of science teaches us that even from failures we may learn much, I desire to direct attention to certain fundamentals.

It is necessary that there should be a clear distinction between **means** and **methods**. Modern X-ray apparatus permits of a means of supplying single maximum dose characterized by reasonable exactness, and safe and pleasant operations; and by reason of these advantages, this form of therapy begins to enjoy a universal and indisputable success. While this is true of the means, it is not true of the method; for the application of single maximum dose is attended with success in the treatment of malignant tumors, but with failure, according to our experience, in the treatment of tuberculosis patients. Fifteen years of Roentgenotherapy applied to tuberculosis patients have taught us gradually to increase filtration, at the same time diminishing the dose and lengthening the intervals between treatments. Forced treatment is found to be of no great use, but rather contrariwise, often detrimental; so that from these developments the massive "tuberculosis X-ray dose" has exploded. Carcinoma must be extirpated, for which we may use either the knife or the Xray. The bodily organization has no defense against it; there is no spontaneous healing. But tuberculosis is not cured by us, but by the ability of the organism to readjust its immunologic constitution and to supply necessary reactions of defense. We can only offer assistance in a degree compatible with the apparent healthy condition of the individual. This lesson is from experience: **The more serious the tubercular affection the smaller the profitable Roentgen dose.** And this experience applies not alone to the various stages of tuberculous infection, but also to the different anatomical localities and manifestations of the disease, including tuberculous adenopathy, tubercular bones and joints, urogenital tuberculosis and also pulmonary tubercular infection. Even moderate doses are sometimes followed by serious set-backs; whereas, division of moderate doses into still smaller doses repeated at lengthening intervals results in more marked benefits. And it is practically axiomatic that when repeated small doses are not attended with good results, no amount of forced Roentgenization will do whatever good.

The single maximum dose has been applied also to leukemia; and the myelogenous spleen has been treated over a protracted period with high-powered apparatus. In 32 cases, not only were general shocks experienced, most of them extremely difficult to overcome, but there were also witnessed three sudden deaths. Leukemia renders the mechanism in all its parts especially sensitive to primary and secondary Roentgen Ray effects. So that, obviously, the means of X-ray therapy is not at all to blame, for high-powered Roentgenology works quicker and better than other forms in certain conditions, but it has misled to unbiological doses. That is, leukemia is a contra-indication, like tuberculosis, for the use of anything other than minimum X-ray doses; not maximum X-ray doses.

Relative to the glands of internal secretion; the hypophysis, thyroid, thyms, ovaries, and testicles. It is generally known how obscure and complicated the healing mechanism, in cases showing affection of the various cryptorrhetic tissues mentioned; an obscurity complicated further by the fact that generally the glands show dysfunction affecting group rather than individual structure. Even the normal glands cannot be Roentgenized without inducing serious changes; first because impairment may fall to their own function, and, secondly because of the relation that each gland bears to the others. So that the "hypothysis dose." "thymus dose" and saturation dose for each of the tissues mentioned, in the light of our present understanding are found to be productive of premature acromegalous and other types of abnormal development. The thyroid dose leads to myxedema or cretinism, from which many strumata can be differentiated only with difficulty. We have strongly X-rayed a struma suspected of carcinoma, and observed the development of myxedema. We have treated for months a case of sarcoma of the sacrum during which treatments the testicles were exposed. In the course of time the patient appeared and reported increased sexual power, abnormally abundant beard-growth and all the obvious changes that combined to present the clinically recognized Steimach effect. Examination of the sperm showed necrospermia, the cause for which was attributed to secondary rays passing from the pelvis. From which we learn that purposeful exposure to the X-ray with anything other than minute doses, leads to excessive Roentgenization.

So with the "ovary dose," which was at first developed as a single maximum dose. In this form, doses applied in 100 clinical cases produced in each one a cessation of menses. Doses were applied in many varieties of menstrual disorders and for numerous different indications; and it was observed that in those individuals who failed to complete the series of treatments, that even half or less of the "ovary dose" is sufficient to stop menstruation. In a number of cases where I applied quite small, so-called "irritation doses three individuals, successively atfer 8, 5 and 4 irritation dose treatments, developed the menopause. Are we, therefore, justified in applying 10 to 20 times more than is necessary to secure exaggerated physiological activity? Among my cases of strongly rayed myomata, five developed hyperthyroidism, four hypertension, two distinct acromegalia, and many gave clinical indications of marked ovarian irritaton. Whereas, similar cases that are rayed feebly, show surprisingly excellent recovery characterized by the absence of any untoward secondary endocrine effects.

It is my belief, therefore, that we do not have the right, simply for the purpose of maintaining a uniform and easily conducted Roentgen therapy method, to destroy more in the cure of a single case than is physiologically warranted. In the case of the ovaries, since these show extremely variable and vaguely measureable susceptibility to Roentgen rays, it is better to use the individual "ovary dose." In cases of moderate bleeding, this amounts to about one-fourth of the maximum ovary dose, repeated after skipping two menstrual periods. In cases of profuse bleeding the same volume of X-rays are applied, aided by curettage. Only in those instances where the very life of the individual is threatened is the use of the maximum ovary dose cogently indicated.

This is not the first time Roentgenontherapy enters on wholesome retreat. In 1904 we experinced the same return, the matter of controversy at that time being skin cancer. L. Fruend established the method of the use of small doses of X-ray in therapy. Kienbock made use of it but divided the aggregate dose into four parts; and I, by means of meter readings, once designated the concept of the full or maximum dose. In appliynng the full dose principally to the treatment of Lupus, exzema, and psoriasis, it was observed that the conditions grew progressively worse and pointed to the strong need of urging caution against the ubiquitous employment of the maximum dose. These experiences of earlier years should teach us ever to be on the alert in the careful observation of the present phase of development of Roentgenotherapy.

RESUME. We shall do well in not using one method of Roentgen Ray treatment for all sicknesses, but to use for each sickness its own method. In the treatment of malignant tumors it is wise to seek the single maximum dose; but for all other sicknesses we shall have to return to the medium and fractional dose. Speaking of averages it is best to give small doses according to the gravity of the affection in general, and according, also, to the severity in particular. We should refrain from discrediting any form of Roentgenotherapy. The designation "waste doses" should no longer be used by us; it operates prejudicially as it refers with disrespect to a splendid therapeutic method. In its place we should use the term broken doses, or part doess, medium and small.

(NOTE:—Copies of the original article are filed in the office of the Bulletin. The above translation is practically literal; and although certain idioms are not rendered, the spirit of the communication is maintained.)—Mastercraft X-Ray Bulletin, December, 1921.

STUFFED CAPSULES

¶ ¶ If you are contented and happy, you are a worker.

* * * *

¶ ¶ Joy ride: Any ride that ends at the coroner's office or police station.

* * * *

¶ ¶ If you have a family skeleton don't let her expose her shoulder blades in a backless evening gown. —Exchange.

* * * *

Work Appreciated—Greetings

¶ ¶ Dear Doctor: Your kind co-operation has contributed materially to our success and we appreciate it most cordially.—C—— Undertaking Company.

* * * *

¶ ¶ The misinformation, that patients under treatment by vacuum tubes receive ultra-violet rays in therapeutic doses, is still being published. Accepting as a fact that actinic rays are produced within the tube the glass most effectually screens them off.

"Germany's talk about a moratorium doesn't frighten many persons in this part of the country," says the Dodge City Globe. "We've all been 'vaccinated.'"

Poems the Doctor Should Know

THE CHEMICAL UNION

James J. Montague.

("Oxygen men should marry nitrogen women."—Dr. R. Kendrick Smith of Boston.)

Oh, lovely nitrogenous lady,
Each oxygen atom in me
With love is aflame, and demands that you name
The day when our wedding shall be.
Yea! even the tiny electrons
Of which the said atoms are built
Would droop in despair if a maiden so fair
Were to prove a perifidous jilt.
So hark to my passionate pleading,
Let our hearts and our souls have communion—
With never a sigh as the years hasten by—
In a perfectly chemical union.
I wedded, before I had wisdom,
A maid of the oxygen sort.
Our marital life was a record of strife
Which ended, of course, in a court.
Identical atoms composed us.
Our wants were exactly the same.
It's a fatuous plan for an oxygen man
To marry a nitrogen dame.
We both wanted fat for dinner,
Unlike Mr. Spratt and his spouse,
And for seven long years, filled with curses and tears,
Our rows made a wreck of the house.
But you're a nitrogenous maiden;
Your atoms are friendly with mine;
For the fat I'll be keen; you'll be strong for the lean,
And our dinners will all be divine.
We'll dwell in delightful contentment,
According to the chemical law,
And our joys will increase in molecular peace,
With never the sign of a flaw.
So prithee, accept my proposal,
Send me word that you'll surely be mine.
We'll be happy through life as a husband and wife,
For our atoms will get along fine.

HOME

Katherine Edelman.

Two little feet a-pattering down the street,
Two little hands outstretched in childish glee,
Two little lips a-puckered for a kiss—
A welcome that a king might envy me.

A little home to call my very own,
(How man can love the things that are all his)—
And at the door your eyes like beckoning stars—
Thank God for every little home that is.

REKINDLING

Ella May Arneal.

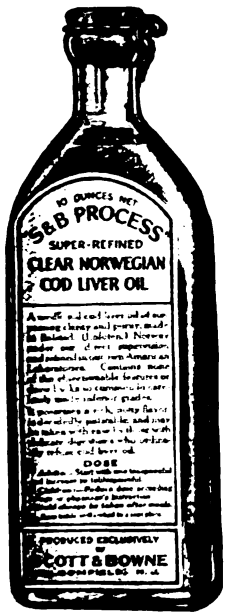
My heart leaped up; from out the dying embers,
A flame shot forth, and broke the deep'ning gloom.
More fuel then I brought—good cheer and gladness;
Love's wondrous light soon filled all my life's room.

¶ There is no definite etiology for the spontaneous hemorrhages of the new born.—J. R. Losee, M. D.

Fat Soluble A and Rickets

"In cases where rickets or growth failure or xerophthalmia are already well established, a daily dose of cod-liver oil is essential to all other procedure."

What modern science has done to assure pure milk, it has also done for cod-liver oil.



The "S. & B. PROCESS"

Clear Norwegian (Lofoten) Cod-liver Oil

is pure oil from selected, healthy livers of fresh caught *True Gadus Morrhuae,* that may be prescribed with the same confidence that you would certified milk.

Produced in Norway and refined in America.

Liberal samples to physicians on request.

SCOTT & BOWNE, BLOOMFIELD, N. J.

Makers of Scott's Emulsion.

21-2 a

Medical Melange

AUTOTOXICATION

There are many cases of interference with metabolism, which originate in the intestinal tract, caused by congestion of the liver, which has become indolent on account of its unsuccessful endeavors to prevent the poisons generated in the intestinal canal from entering the general circulation. As a result, there is autointoxication. In these conditions Tongaline is particularly indicated, because while the salicylic acid is an antidote to the poisons, the colchicum and the pilocarpin stimulate the activities of the skin and the intestinal secretions.

CONSTIPATION

The great advantage of Sal Carabana in the treatment of constipation is that its immediate effects are not followed by a reactionary sluggishness of the bowels. Indeed its influence, shown by one or more daily stools, often persists for several days without the slightest discomfort or ill-feeling. Beyond all doubt this is due to its pronounced tonic properties which increase the tonicity of the muscular structures and enable them to respond to stimuli, with adequate peristalsis. Moreover, Sal Carabana is quite freely taken by even the most squeamish patients and no matter how weak or intolerant the stomach, it rarely ever nauseates or provokes vomiting. On the contrary, it almost invariably allays gastric irritation, since it tends to restore both the motility and secretory functions of even the most rebellious organ. As an eliminant and intestinal antiseptic, Sal Carabana is unequaled, and many times gives almost startling relief from the auto-toxemias traceable to intestinal fermentation. One to two teaspoonfuls in a half glass of water is the usual dosage.

THE MOST WIDELY EMPLOYED ANTISEPTIC

For cleansing infected wounds, or dressing fresh cuts or abrasions, there is no antiseptic more serviceable and efficient than peroxide of hydrogen.

But it is necessary to be sure that the peroxide of hydrogen employed is pure, or uniform character, and of well-defined germicidal potency. It is the possession of these properties to an exceptional degree that has made Dioxogen the most widely used peroxide of hydrogen. No other antiseptic is so prompt in its control of suppuration, so gratifying in its promotion of tissue repair, or so satisfactory from every other standpoint.

A bottle of Dioxogen in his office or in his surgical grip gives the busy practitioner the gratifying assurance that he is prepared to meet any condition or emergency calling for antiseptice treatment.

The Insomnia of Infections.—During the period of acuteness and convalescence of severe infections, such as typhoid fever, it frequently happens that, one of the most distressing manifestations is extreme nervous irritability leading to insomnia. The careful clinician is likely to avoid sedatives that have even the slightest depressing effect. However, he may use Pasadyne (Daniel) without giving heed to the possibility of depression for it does not produce it, and yet is a potent sedative. Pasadyne (Daniel), thus being free from danger, is of particular usefulness in the insomnia of the more severe infections and

BEEBE NATURAL NUTRIMENTS

ARE

SCIENTIFICALLY PREPARED

CORRECTIVE DIETARY PREPARATIONS

For Infant Feeding.

These Preparations are prepared particularly for Pediatricians and those physicians who, in the course of general practice, are called on to watch over the health of babies.

BEEBE NATURAL NUTRIMENTS are indicated in cases of malnutrition, digestive disturbances, insufficient or unsatisfactory supply of breast milk, and those conditions in which it is deemed advisable to add certain elements of nutrition not present or insufficient in the regular diet.

PROTEIN MILK — **Eiweiss Milch of Finklestein.**

MODIFIED BUTTERMILK — **With Starch and resultant Dextrins.**

VEGETABLE POWDERS

Carrot and Spinach.

Especially processed so as to be easily assimilated, Supplying Minerals and Vitamines.

ORDER THRU YOUR DRUGGIST OR DIRECT

BEEBE LABORATORIES, INC., Argyle Bldg. Kansas City, Mo.

Home Office and Laboratories, St. Paul, Minn.

may be used with every feeling of assurance that it will meet the indications for a safe effective sedative. A sample bottle may be had by addressing the laboratory of John B. Daniel, Inc., Atlanta, Ga.

Iod-Izd-Carbon (Millers)—Rx. Water-Soluble Iodine 2.3 per cent in combination with Charcoal, Hydrated Lime, Hydrocarbon Oil. Sig. 1 or 2 capsules t. i. d. ½ to 1 hour before meals or, in severe cases, every 3 hours with large draughts of water or milk, as an Internal Antiseptic, Alterant and Gas-Absorbent. The special purpose of this combination is to allow the iodine to pass well into the internal tract before all of it has been absorbed. The iodine suffers no deterioration nor chemical change. It retains its bactericidal power and antisepticizes not only the stomach, but the entire intestinal tract. One capsule of Iod-izd-Carbon (Miller's) is sufficient to asep ticize four quarts of the alimentary content. Delicate stomachs tolerate Iod-Izd-Carbon (Miller's) better than any other combination of iodine.

The Best Artificial Hand—We believe that every physician should know what our hand will do for his patient, as well as the kind of a stump that is most useful in the fitting of our arms. A stump from six to eight inches, or just back of the wrist for lower amputations is the most desirable from our point of view. This leaves the natural rotary motion of the forearm and with our arm your patient will come very near being back to normal. A wrist joint amputation can be fitted up, but does not give the patient any advantage and never looks as well. In fact a higher amputation gives much better results. A case with a long wrist cannot be fitted with any comfort to the wearer. The four fingers fitted on to the stump with a natural thumb cannot be fitted with any comfort or use to the wearer. For amputations above the elbow always leave the stump as long as possible. With a good cast, which any physician can take, and proper measurements upon blanks furnished by us, we guarantee a perfecet fit without the patient visiting the factory. Correspondence solicited. Pollman Artificial Limb Company, LaCygne, Kansas.

A Noted Fictionist.—Mary Roberts Rinehart, author and playwright, was born in Pittsburgh, Pa., and was educated at Pittsburgh public and high schools and at the Pittsburgh Training School for Nurses. In 1896 she was married to Dr. Stanley M. Rinehart of Pittsburgh. Mrs. Rinehart's purpose in attending the nurses' school was to take a preliminary course before engaging in the study of medicine "At the training school," she wrote to a friend, "I decided to study medicine at second hand, and three days after graduation I married a surgeon on the hospital staff.' Mrs. Rinehart is the author of a number of books and plays. Her home is in Sewickley, Pa.

Constipation is ordinarily one of the annoying problems of infant feeding, and it is of advantage to know of and employ a product that is of established efficiency in correcting this condition and promoting normal peristalsis. The fact that infants fed upon "Horlick's" Malted Milk are rarely subject to constipation and its attendant ills is one reason why this reliable product has been employed with such great success by the medical profession for over a third of a century. In relieving the constipation of bottle fed infants on dietetic lines (which, of course, is preferable to the employment of drugs, except as a last resort), it has been found that an increase in the quantity of sugar, and especially the employment of mal-

The Management of an Infant's Diet

Maltose and Dextrins

are the carbohydrates in

Mellin's Food

Protein

in a most available form is a part of the composition of

Mellin's Food

Potassium Bicarbonate

together with the salts in wheat and barley
are the inorganic constituents of

Mellin's Food

Mellin's Food Company, Boston, Mass.

tose instead of lactose, has produced highly satisfactory results. It is now generally admitted that maltose is remarkably well adapted for infants; that infants digest larger quantities of maltose than of lactose or cane sugar without disturbance of digestion; that maltose is more readily assimilated than lactose, is less liable to fermentation in the intestinal tract, and is generally better utilized by the organism of the sick infant than any of the other sugars. In making use of maltose preparations for the relieving of constipation, it should be remembered that the best results are obtained with products containing a relatively large proportion of maltrose and a relatively small proportion of dextrin. Horlick's Malted Milk contains maltose and dextrin in the proportion best adapted to exercise a favorable influence upon the gastro-intestinal tract as its success has proven.

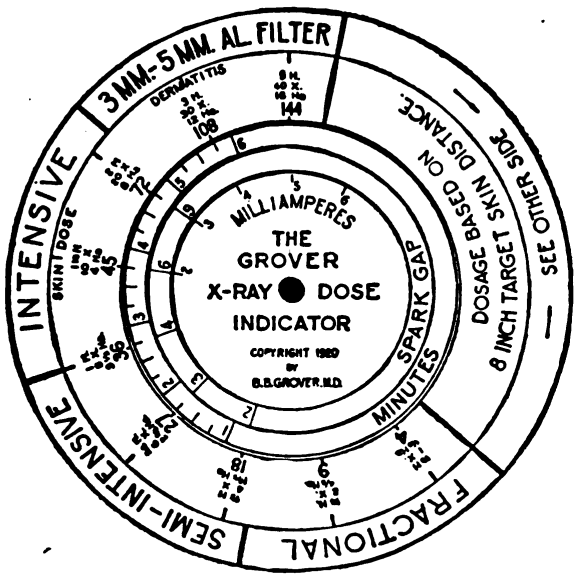
An Old Acquaintance in a New Dress—Throughout the civilized world, the medical profession generally has been accustomed for 30 years, to prescribe Gude's Pepto-Mangan whenever a general blood tonic and general reconstructive is indicated. In its original liquid form this preparation has become as standard in its special field as is quinine in malaria or a splint in a fracture. Many physicians, for a long time, continued to request the manufacturers to prepare Gude's Pepto-Mangan in tablet form, and it is now so available. Both liquid and tablets are generally carried in stock by wholesalers and prescription pharmacists throughout the country. Gude's Pepto-Mangan in tablet form is especially convenient for teachers, travelers, and business men and women, because of their ready portability and ease of administration. The liquid and tablets are identical in composition, as far as the active medicinal ingredients are concerned, and the therapeutic action is also the same, i. e., hematinic, tonic and reconstructive, minus the irritant effect upon the gastro-intestinal tract so commonly noted after the administration of the ordinary forms of inorganic, metallic forms and preparations of iron. Samples, literature and further information are obtainable from the manufacturers, M. J. Breitenbach Co., New York.

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the poisons that have been developed, the iodine is given an opportunity to counteract those being formed, and stimulate the antitoxic forces of the organisms. The following prescription has been used with very gratifying results:

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Syr. Zingiberis q. s. ad.....4 oz.

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The Real Cause for Complaint.—The maid had been using surreptitiously the bathtub of her employer, an elderly bishop. He was a bachelor, very fastidious about his toilet, and desired the exclusive use of his tub. When he heard of the infraction of rules he reprimanded the maid with much indignation: "What distresses me most, Mary, is that you have done this behind my back."

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A New Vitamine Preparation—Parke, Davis & Company, whose researches on the vitamines resulted last year in the placing of a vitamine extract preparation, called Metagen, on the market, are now offering an Emulsion of Metagen and Cod-Liver Oil. Metagen, it will be recalled, contains the three known vitamines, A. B and C; and cod-liver oil contains the fat-soluble A vitamine in abundance. The fat-soluble vitamine is essential to nutrition, and is believed by Mellanby and others to supply an antirachitic factor. The new preparation, containing not only the quota of fat-soluble A vitamine that belongs to Cod-liver oil, but a portion also of the same vitamine from Metagen, is indicated especially in the treatment of rachitis; and, since it contains also the other two vitamines (antineuritic and growth-promoting, and antiscorbutic), there can be no question of its value in malnutrition in general, especially in cases which during the winter months are subject, on account of low resisting power, to frequent attacks of bronchitis. The dose of the new preparation for children is one to two teaspoonfuls; for adults, one to two tablespoonfuls. The preparation contains 40 per cent of pure Norwegian cod-liver oil and 2 per cent of Metagen.

Anesthetize the Cough.—Many irritating, tickling coughs are met with at this season of the year. These troublesome affections may be readily overcome with Anesthesia-Calcidin-Troches. These pleasantly flavored Troches give almost immediate relief. The Anesthesin content stops the cough while the Calcidin affords the iodide medication, so remedial in cases of sore throat, tonsilitis, bronchitis and kindred affections. Samples of Anesthesin-Calcidin-Troches may be obtained promptly by writing to The Abbott Laboratories, Chicago.

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THE DEPARTMENT OF PHYSICAL DIAGNOSIS is under the direct supervision of Dr. I. J. Wolf, Professor of Medicine in the University of Kansas, formerly Professor of Medicine in the University Medical College.

CLINICAL LABORATORY is fully and adequately equipped so that all forms of examination that may be demanded, including urinalysis, gastric analysis, blood, blood chemistry, C 02 Alveolar tension, Wasserman Test, and the various bacteriological examinations can be promptly and accurately made. Dr. S. H. Richman, former pathologist of the Cook County Institutions, is in charge of this department.

We invite the co-operation of the profession and wish to assure it the fullest assistance in whatever capacity we may be of service. All cases referred to this clinic for examination are returned to their respective physicians with a full report of the findings and such recommendations as seem pertinent.

The laboratories endeavor to give accurate and prompt service whether it be in a simple urinalysis, a Wasserman, Metabolism rates Electro-cardiography.

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This clinic has established a physio-therapeutic department, fully equipped, and offers to the profession such measures as may be found necessary to increase elimination, improve local and general circulation, produce hyperemia, sedation, stimulation and general tonic effects.

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Notes By The Wayside

¶ It is an extremely humiliating confession to make that many epileptics tax the patience and try the ingenuity of the most persistent therapist, but it is worth making if it will but serve to remind that all the knowledge as yet learned of epilepsy lies in its clinical manifestations.—Wechsler, Med. Rec., Oct 22, 1921.

—If the writer were able to endow an institution or a foundation it should be for the study of the epileptic and means for his relief. Of all the afflictions we try to relieve, or blindness, or deafness, or dumbness, or paralysis, or deformity, epilepsy seems the greatest.

✣ ✣ ✣

¶ The X-Ray men hold that acute tonsils should be removed surgically and that others can be cured in four X-ray treatments, one every two weeks for four treatments, getting perfect results in four months.

✣ ✣ ✣

¶ One surgeon reports that of his operative treatment of sarcoma of the cervix he has no cases alive, but under radium treatment he is having cures.

✣ ✣ ✣

¶ Dr. Logan Clendening, of Kansas City, Mo., has a very able, illustrated article in the J. A. M. A., October 15, 1921, "The Causes of Unfavorable Symptoms following Gastroenterostomy."

✣ ✣ ✣

¶ The courts have held that burns from the use of the X-ray are not necessarily the result of negligence by the specialist since it has been proven that sores might come from proper treatment without negligence in a hypersensitive patient.—(A.V. F. 188 N. Y. Supp. 777.)

✣ ✣ ✣

¶ It is safe to say that a very large part of the physician's helpfulness to his patient lies in the unconscious dependence that the patient places upon his belief in the certainty of help, wherefore if the pills be of auspicious color and the mixture tastes as if it has excellent virtue in it, then time and rest and the patient's recuperative powers will do the work, not in spite of the doctor, but because of the mental uplift of his presence.—H. G. Webster, M. D.

—This is the doctor's christian science.

✣ ✣ ✣

¶ The chiropractic may admit he's a back number.—Tonics and Sedatives, J. A. M. A.

—But he's never out of print.

¶ Nature has implanted in the breast of every living creature an instinctive desire for reproduction of itself.—(A. I. Wolborst, M. D., Amer. Med.)

—Ideally, yes; but today, after one reproduction, the desire seems to lift from the chest and moves to the head, and that is different; thus nature's purposes are thwarted, 'n'everything.

✣ ✣ ✣

¶ There are five physicians in the House of Representatives at Washington. They are Dr. Ladilas Lazaro, Louisiana; Dr. Caleb R. Layton, Delaware; Dr. A. E. Olpp, New Jersey; Dr. J. J. Kindred, New York; Dr. J. W. Summers, Washington.

—See to it that your state sends one or two more. Many more are urgently needed to control unfriendly legislation.

✣ ✣ ✣

¶ The process of birth was not devised by man. Modern obstetrics must proceed along the lines of least interference with nature's own process, lend the greatest aid at the least vital cost, and be able to help into the world the largest number of living unmutilated babies with the least harm or chance for infection to the mother.

—This is accomplished through pre-natal care, hygiene, physiologic chemistry, asepsis, sanitation, cleanliness, common sense, patience, and by not meddling.

✣ ✣ ✣

¶ "There is no method of therapy known but what rightfully belongs to the medical profession."—Dr. Burton B. Grover.

—Yea, even salesmanship!

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¶ Dr. S. Grover Burnett says "Luminal for Epilepsy may grow to be something more than a commercial commodity but just now it looks like a therapeutic misfit in the world of fits."

—Luminal, I take it, that any worse fit would be spasm. —*Harry Nelson Jennett.*

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Vol. XLI FEBRUARY, 1922 No. 2

Original Contributions
[EXCLUSIVELY FOR THE MEDICAL HERALD.]

HOW TO ARREST THE INCREASING PHYSICAL DEGENERACY OF THE RACE

By W. O. HENRY, M. D.,
Los Angeles, Calif.

MY SUBJECT demands very plain speaking and requires clear cut statements of the facts with a practical application of the truth as far as it is known.

Let us begin then by saying that whatever produces disease in the human body, brings on weakness or physical degeneracy in the individual and many times in the offspring. And, further, all disease is the result of disobedience to the laws of health.

To specify some things, please note the following:

1. Abuse of food and drink;
2. Improper clothing and shelter;
3. Worry, overwork and study;
4. Unsanitary living or working conditions;
5. Abuse of drugs;
   (a) Alcohol,
   (b) Tobacco,
   (c) Opium,
   (d) Cocaine.
6. Abuse of sexual system;
   (a) Sexual excesses;
   (b) Over child-bearing;
   (c) Criminal abortions;
   (d) The venereal diseases;
   (e) Improper care at child birth.
7. Bad heredity and improper care of children;
   (a) Inherited diseases;
   (b) Inherited weaknesses and debility;
   (c) Lack of proper training and instruction;
   (d) Lack of discipline and too much child labor.

It is all too true that many laws of health are violated through ignorance; but when known and deliberately transgressed or disobeyed, it **always means also violation of a moral law.** For this command: "Thou shalt not kill," no doubt meant to forbid the sudden taking of one's own life (suicide) and that of a fellow being (murder), by any direct or violent means. But, it also forbids taking human life, (your own or that of another) by any slow or lingering process, as might be done by food or poisons which would undermine the health and thus produce sickness or physical degeneracy which would **shorten** human life. Nor is it any mere fancy to say that this law applies with equal force to any habit or practice which is known to weaken the physical body, hasten decay and produce premature death; whether that be eating forbidden fruits and food, or by criminal abortions, or by acquiring and spreading the veneral diseases, or in any other manner. And, therefore, the most important part of **Scientific Medicine** is discovering, practicing and teaching the laws of health to the human family.

Dr. E. L. Fiske, of the Life Extension Institute of New York, says: "Many of the diseases which cause death at thirty, forty, fifty, sixty and even later, are preventable, or at least can be deferred. There is much evidence that the mortality from diseases of the heart, blood-vessels and kidneys has increased during the past thirty years. These diseases are those of old age. Old age is not a matter of years. It is a matter of health, of the condition of the body mechanism. Growing old is simply a process of physical deterioration."

When Lord Beaconsfield said: "The public health is the foundation on which reposes the happiness of the people and the power of a country. The care of the public health is the first duty of a statesman," he no doubt over-

A paper prepared for the meeting of the American Medical Association at Boston, June, 1921.

stated its importance but we may well give it a much higher place in our consideration than is now accorded to it.

From the House Commerce Commission in Washington, the other day, it was reported that "Motherhood is safer in any of 17 foreign countries than in the U. S., and babies in ten other countries have a better chance of living through their first year."

Colonel Pearce Bailey, Chief of the Department of Neurology and Psychology in the Surgeon General's office during the world war, in a very creditably written article, says:

"Alcoholic insanity which results from years of inveterate drinking may be regarded as an index of the amount of intemperance in a community. The percentage of these cases among the first admissions to the State Hospital of New York has steadily fallen from 10.8 per cent in 1909 to 5.6 per cent in 1915. During the next few years ending June 20, 1920, there was a further decline to 1.9 per cent. During the nine years, 1909 to 1917, when alcoholic insanity was decreasing there was no decrease of the insanity rate in the State, but on the contrary, an increase. From 1917 to 1920 there was a slight decrease in the number of admissions but the present insanity rate is still higher than it was in 1909.

These statistics do not stand by themselves but are corroborated by those which record the percentage of intemperate habits among first admissions.

Of these the percentage reported as using alcohol to excess was in 1909, 28.7 per cent; in 1916-18, 5 per cent; in 1920, 12 per cent.

Results show that things far more deadly than alcohol undermine our national peace and morality and that it is against them first of all that reconstructive efforts should be directed.

Many of the facts to be presented in this paper are new and were not available before prohibition became an assured fact.

Before presenting them as they concern national degeneracy, a word must be said as to what causes a race to fail to attain its maximum achievements, and failing that, to decline.

The dream of enforced prohibition is a new regenerate race, but being a dream it proceeds before having arrived at a real understanding of what causes a race to degenerate. **Degeneration is a loose term at best, but may be defined as a racial weakness in Physique and Morale which becomes progressive through heredity.**

The pathological factors most easily identified in the decline of morale are the nervous disorders, constitutional for the most part, which impair the functions of the mind and the stability of character. Among these disorders are insanity, mental deficiency, nervous diseases, and their border line types.

The stastitics upon which this paper is based show that in every thousand physically sound American young man of a given age period, there are twenty, too much invalided from such nervous causes to be soldiers, while there is less than one unfit from alcohol.

The entrance examination of the army, 1917 to 1918, has shown that for certain age periods chronic alcoholism is at the bottom of the lists of those diseases and abnormal state in which heredity is most evident, and which independent of economic conditions are responsible for most of the idleness, poverty and despair in the world."

In a paper by Dr. Charles V. Chapin, Superintendent of Health, of Providence, R. I. he says: "It was assumed that freedom from disease depended on community effort and on municipal house-cleaning and on the zeal of the health officer. It came to be seen that this is only partly true, and that the individual can do as much or more to preserve his health as the state can do for him. Instead of compulsion, persuasion became the watch-word. Assistance to right living was to be offered and the people were to be persuaded to avail themselves of it. Education has become a distinct branch of health work. Let us beware of the compulsory treatment of disease. That is another rock on which the future of preventive medicine may be wrecked. **Education is better than legislation.**"

In 1914, a notable gathering was held in Battle Creek, Mich., the first of its kind ever held in the world, a "National Conference on Race Betterment." It was attended by representative men and women from many parts of the United States, and the papers and discussions were largely by members of the Medical Profession. It was worthy of special note that the almost unanimous verdict was that in highly cultured America, the habits and customs of Society are so depraved that physical degeneracy is on the increase, and something should be done to turn the tide and make for improvement and real progress. The abuse of drugs, which includes tobacco. alcohol, opium, cocaine, heroin and others has grown to such an alarming extent as to awaken the greatest fears among all well informed lovers of mankind.

Allow me to make a few quotations from some of these addresses:

Dr. Henry Smith Williams, of New York, in closing his paper said: "Summarizing let me say that the records of police courts, the records of prisons, the records of almshouses, the records of asylums for the insane, all show con-

ditions in the prohibition territory that average at least as bad as and very commonly worse than elsewhere."

Dr. James T. Stearcy, of the State hospital for the insane, of Alabama, said: "I am at the head of about 2,200 insane persons * * * my following is increasing faster than any other one class of people in the State." "The population of Alabama, according to the census, increased 16 per cent, the admissions into the insane hospitals increased 45 per cent." "These are appalling figures, but 'misery loves company,' and we can parallel them all over the U. S. * * * the general population of the U. S. increased 18 per cent and that of the insane hospitals 28 per cent during the years of the census. * * * This increase of insanity is prevailing in civilized countries worse than in other countries, and, apparently, the more civilized, the greater the increase. * * * Do you know that in the schools of this country there are more children dullards today, not able to keep up with their classes, than there were five years ago? Also there are more wayward boys and bad girls. * * * Increasing insanity comes as a final result of bad heredity and drug abuse of the brain, both most prevalent in civilized countries."

Dr. Richard Root Smith of Grand Rapids, Mich., read a paper on "Deterioration of the Civilized Woman," in which he said, "It is the purpose of this paper to point out and describe certain physical defects in civilized woman which we must regard as marks of deterioration, since they are largely inherited, and represent a less perfect physical development, less strength, less endurance, and a lessened power to cope with life's problems. These defects in varying degrees are found in a large percentage of our women."

Dr. Daniel Lichty read a paper upon, "Tobacco a Race Poison," in which he said: "Narcotic indulgence, whether in Asia or America, means race degeneracy, ethnic inferiority and extinction, race poisoning," "Epilepsy, insanity, idiocy, imbecility and all the collateral grades of mental infirmities are on the increase. The statistics of increase of positive defects over populations are appalling, to say nothing of the criminals, substandards and repeaters of common society. * * * In Illinois the increase of insanity is 667 per cent, while population increase was only 50 per cent census 1900." "Nicotine begets very decidedly neuropathic stock."

He tells us that many experimenters in this country and Europe besides Lee, Jebrowsky, Baylac, Bovere, Isaac Adler, Hesse, Huchard and Bunge agree in concluding "that a toxic principle in the tobacco is the cause of arteriosclerosis." And then he uses these words of warning and admonition, "The Western World is shocked at the burning of widows on the funeral pyre of the husbands of India. **We** are slowly consuming on the pyre of tobacco beautiful boys in the prime of life and the vigor of manhood. * * * We turn pale at the mention of the 'Yellow Peril' in the East while a yellow peril greater than the entire Mongolian horde is menacing our youth and our race. Tobacco is running a neck and wreck race with syphilis and alcohol for supremacy. No athletic or scholarship test has ever been made in which non-smokers did not excel the smokers." Without further quotations from the records of the gathering, suffice it to say that the consensus of opinion expressed by the speakers was that the abuse of drugs including opiates, tobacco and alcohol, with the wide prevalence of veneral diseases are very rapidly degenerating the race, and some definite things should be done to arrest and turn the tide toward Race Betterment in all civilized lands.

Recently it was reported that the use of "dope" in California had increased 30 per cent within a year.

Dr. Chas. F. Bolduan, of the City Health Department, in New York, says in answer to the question, "Why do middle-aged men break down?' "We see that men past the prime of life do not live as long now as they did some years ago. We can give a further insight into the reasons * * * by examining into the prominent causes of death which carry them off at that time. Without citing the figures, I may say that this reveals a marked increase, in recent years, of deaths from heart diseases, arteriosclerosis, Bright's disease and certain diseases of the nervous system. These diseases are intimately related to one another, and have many causative factors in common. Among these the most important are over indulgenve in alcohol and tobacco, the poisons of syphilis, gout rheumatism and other diseases, overeating."

A Los Angeles evening paper said, "No one concerned for the welfare of the race can be indifferent to the revelation that 75 per cent of the boys in the city schools above eleven years are addicted to the cigarette habit."

"A test made by Busch on each of fifteen men in several different psychic fields, showed that tobacco smoking produces a 10.5 per cent decrease in mental efficiency."

During the recent war, the late Sir William Osler said, "Evidently the trench warfare is a nerve racking business. In many cases, tobacco is a fatcor. * * * Among the convalescents, many cases of rapid pulse and slight anemia, are I believe due to tobacco." "The Whit-

ney drug addiction committee estimates from 2 to 5 per cent of the population of New York City are drug addicts, and a larger percentage is found in smaller cities and rural communities."

Marshall Carter, of Baltimore says, "The Harrison Anti-narcotic Act has not diminished the sale of drugs, but opened a channel through which addicts to drugs can obtain ready supplies of narcotics. That there are three times as many drug addicts in this city now as there were a year ago."

In an article for the public press on "The Decay of American Manhood," Dr. J. H. Kellogg, of Battle Creek, Mich, said, "American manhood is decaying. We are going down mentally and morally at a terrifying rate. Major Orr, a medical officer of the regular amy, tells us that two to three out of every four applicants for the army are rejected as physically unfit. The American stock is depreciating physically, mentally and morally. Syphilis is becoming a greater menace than tuberculosis.

The causes are many. Among the most potent and direct are, the saloon, the brothel and the cigarette. The saloon is passing, but we haven't begun to fight the brothel, and we are encouraging the deadly cigarette."

Dr. Robert Abbe, of New York, says: "I once said I had never seen serious mouth disease in any patient who had not smoked more than three cigars a day. A larger experience confirmed this statement. I also said several years ago, that I had not seen such bad effects from cigarettes, but closer study of many cases has shown me numerous serious cancerous or pre-cancerous mouth condition in men who only used cigarettes.

"The corner saloon is being replaced by the convenient corner cigar store, a welcome social change. The effect in practice is, that we see fewer cases of cirrhosis of the liver and alcoholic gastritis, but more cases of cancer of the mouth.

"The intemperate use of tobacco is apt to be a legacy. One of our great National heroes smoked incessantly, as every one knew, and suffered and died from the consequence of disease of his throat. His distinguished son, also a heroic figure in our army, adopted the same habit, smoked equally incessantly and suffered and died of the same terrible consequences.

Every smoker **must determine for himself** what his comfortable limit is, and use his God-given intelligence to safeguard his own and his children's future. More than ever we need a nation of strong men, not undermined in health by any deleterious habits."

Karl Pearson who is director of the Galton Laboratory for Natural Eugenics when discussing the fundamental opposition between medical progress which rightly saves so many physically defectives, and the Science of National Eugenics, or race efficiency, very wisely and truly says: "Everyone being born has the right to live, but the right to live does not in itself convey the right to everyone to reproduce his kind."

A bulletin of the U. S. Bureau of Education says that about 20 per cent of all children in the schools are in need of corrective treatment of eye defects.

What does this mean, but serious physical degeneracy from parents who have violated some laws of health and thus transmitted to their offspring these handicaps?

Dr. Henry Herbert Goddard, who is the director of the training school at Vineland, New Jersey, traces the ancestry of a feeble-minded girl back for six generations, at which time the feeble-minded line was started by Martin Kallikak, a Revolutionary soldier with four honorable generations behind him. This Revolutionary soldier stepped aside to dishonor a feeble-minded girl, and passing on his way, afterwards established a respectable home, marrying a normal woman, of good family.

Sharply dividing at this point, the history of the family shows upon the legitimate side six generations of doctors, lawyers, judges, educators, traders, landholders, with only one insane, only fifteen children who died in infancy, no feeble-minded, no immoral.

Upon the other side are six generations, which, out of 480 descendants, developed 143 feeble-minded, with only 46 known to be normal, 36 illegitimates, 33 prostitutes, 3 epileptics, 82 died in infancy, 3 criminals, 8 keepers of disreputable houses, and 24 confirmed alcoholics."

Prof. Roswell H. Johnson of the University of Pittsburgh, said: "The venereal diseases will probably, if we can continue our present progress in treatment and prophylaxis, be brought under control in the course of a century."

But let me remind you that so long as man disobeys the Biblical laws of sex hygiene, the venereal diseases in one form or another will continue to be with us; for you can no more persist in disobeying this law of God without suffering a penalty than you can any other law of God either moral or physical.

If men and women persist in promiscuous sexual relations in defiance of the Divine law they are doomed to suffer a physical penalty of some kind, and that, today, is manifest in the venereal diseases with certain hereditary firmities.

Some of you may recall the sensation cre-

ated in 1912 when Dean Sumner of the Episcopal Cathedral of Saints Peter and Paul, in Chicago, made the announcement that he would perform no more marriage ceremonies unless the parties "presented a certificate signed by a reputable physician, that they had not an incurable or communicable disease." And you may be interested in knowing that this sentiment very rapidly spread from Maine to California and produced some beneficial effect on public opinion, at least.

But I wish to insist that the drug fiends, feeble-minded and various other defectives as well as those having incurable diseases or feeble constitutions which would necessarily be transmitted to their offspring need not and should not be deprived of the comfort and privileges of married life, even though rendered sterile and prevented from producing their own kind. It would be fair and right and humane and just for both parties to know all of the facts and then, if they desired to marry without the possibility of progeny, no harm could come to them or to society nor would they breed other incompetents or defectives and they might get more happiness and usefulness out of life by marriage and, therefore, they should be permitted this privilege.

(To be continued)

THE ELECTRONIC REACTIONS OF ABRAMS

By BURTON W. SWAYZE, M.D.
Allentown, Penn.

I AM moved to write this article because of a marvelous year of experience, in fact, the most satisfactory year of my entire thirty years of professional life; a year that brings me the greatest satisfaction because I can count more actual cures than my previous yearly experience.

In fact, as I look back over the past thirty years and recall the thousands of patients to whom I have ministered, I begin to wonder, in the light and experience of the past year, just how many of those thousands I have really permanently helped, and the unwelcome doubt comes to me that such "cured" ones are, possibly, not cured at all.

This is a confession few of us are willing to make. Yet I doubt not but that many physicians, likewise, have this same doubt as they review their experiences and practices, yet all of us have done our level best and given our best of knowledge and skill to each suffering person coming under our care.

Based upon the experience of the past year, has authorized the venereal diseases." "If all I am led to believe that all former efforts have only succeeded in allying the ravages of diseases and while I have had my modicum of success in restoring health, yet that health consists only in removing the active effects or manifestations of disease and only given nature a "breathing spell," so to speak, wherein she has striven to maintain the physical equilibrium which we call "health."

But as to having actually destroyed the real causative factors of disease, except in a reasonable number of well-remembered instances, I fear that I, as well as many other physicians, have utterly failed.

What actually has been done has been only to overcome the physical evidences of disease processes, and the causative factors, or the actual disease itself, remains locked up in tissue and organ and held in restraint by kindly nature. Ultimately, however, conditions may arise under which the diseases will again flare up, like a smouldering fire re-flares, to produce a conflagration that will be fatal to the individual.

In spite of the multiplicity of our therapeutics designed as specifics in the many diseases of humans, do we not frequently come short of actual destruction and elimination of disease causes, and are not those causes still present but held in restraint or bondage by nature?

Otherwise how can we account for the so-called relapse we so frequently meet in our daily experiences, for, certainly, had we really completely destroyed disease causes we would not have these relapses so frequently.

Surely all of us have many failures of complete and permanent cures charged against us. It cannot be otherwise if we are human beings, for all humans are fallable, and a careful study of our failures will reveal, in the last analysis, that despite our specific medication the specific has failed to produce the cure.

Or, which is most likely the real truth, faulty diagnosis has been responsible for our failures for the faulty diagnosis has misled us into treating the wrong thing. That we do make faulty diagnoses is only too true and the results are seen in the host of chronic invalids or the rounded mounds in the cemetery. The investigations of Dr. Cabot who made a series of autopsies of patients who died in the Massachusetts General Hospital, with all its expert clinicians, proved that at least 47 per cent of the diagnoses had been wrong and the patients treated for the wrong complaints.

This, certainly, is not a comforting line of thought or contemplation but it will pay us to now and then face facts and draw lessons, as well as inspiration, for better and more careful

work, from our failures, and seek to correct our faulty technique or overcome our carelessness in the future, for, brethren of the profession, we deal with human life and happiness and our success is reflected in the economic and social life of our community and nation. In fact, the material well being of the nation rests upon us.

While it is true that the man who never makes mistakes never is successful, yet it is only the man who squarely faces his delinquencies and studies over the "whyness" of his mistakes and corrects the same or avoids them in the future, who really is a success. This applies to all human enterprise as well as in medicine.

I really believe that the chief fault lies in making our diagnoses. Certainly it is true that if we are on the wrong track we cannot reach our destination. And if we start on a wrong diagnosis we cannot expect our therapeutic train to reach the station called, health.

But all of our incorrect diagnoses are not due to lack of skill or training. Many of them, I honestly believe, are true diagnoses based upon the evident sign-posts of disease present. If the diagnoses thus made prove wrong, we are not wholly to blame. It is a pardonable error and the chances are that as we progress with our treatment kindly nature will unmistakenly reveal to us the real trouble and we will shift our treatment and secure at least a symptomatic cure.

Thinking back over the thirty years we readily recognize the fact that there have been greater strides forward in the matter of therapeutics than there have been in diagnostic procedures. We now have infinitely more new drug compounds with which to fight disease than we had twenty or even ten years ago.

In fact there seems to be a competitive race on between the pharmaceutical and research laboratories as to which will produce the most number of drugs and specifics, and each is backed up by elaborate "proofs,"—largely laboratorial, it must be confessed.

In contrast to this hare-like speed in the production of pharmaceuticals there is the turtle-like slowness in evolving newer, better and more accurate methods of diagnosis, and the profession is largely left dependent upon the methods that are age-old. Would that trained minds and fingers were turned more into an effort to improve diagnostic methods in order to keep this part of our work on a par with the pharmaceuticals and produce for us diagnostic procedures that would at least approach perfection.

That this need has been recognized by some thinkers is proven by the giving to the profession, in recent years, the results of the investigations of Dr. Albert Abrams who, after some twenty years of study and investigation, has formulated the proven theory that diseases, like all other things in nature, have definite electro-magnetic vibrations and vibratory rates and that the human body, through its sensative nerve reflexes, invariably transmits and deliminates these vibrations to certain specified areas on the body.

Such a statement, at first reading, sounds so like a fairy tale that it is no wonder it is slow of acceptance, but when one reads of the results obtained by those who use the Electronic Reactions of Abrams, one is fascinated, as well as convinced, so that we who use the Abrams Electronic methods have time after time proven that the body areas always gives the reaction of the several diseases when diseases are present, and negative reactions, when diseases are absent.

The invariable appearance of the body reactions in the specified areas where we are taught to look for the named diseases conclusively proves to us that nature, through the reflexes, unerringly reproduces the resonant or dull areas, under gentle finger percussion, evidencing the presence or absence of disease conditions and as we read these signs we are given a true diagnosis of the real causes of the disability which brought the patient to us for help.

The system of Electronic as evolved by Abrams has simply utilized the natural and ever present magnetic forces of nature in the human being and upon this never varying foundation he has built a method that for scientific accuracy has not been equalled. The users of these Electronic methods have at their command a most valuable instrument which will produce for him facts that will prevent future diagnostic error and will permit of therapeutic procedures that will produce more actual cures than he ever experienced before.

Abrams has proven that just as all things in nature, light, heat, matter, etc., are evidenced to us because of their natural vibratory action so also diseases have their vibratory rates and these will be displayed to our understanding through the clear or resonant or dull sounds in certain definite areas of the human body.

For instance, the vibrations of syphilis, either the hereditary or acquired form, present in the patient will always produce a dull tone, under gentle percussion, in the area delimed about finger breadth above the navel and extending across the right and left rectus abdominal muscles. Cancer will produce a similar dullnes

immediately across the navel and tuberculosis immediately beneath the navel.

As a rule a clear or resonant tone appears over the patient's right rectus muscle and dulls over the left rectus. Occasionally both sides will dull but this is not as frequent as the former. If dullness appears in any of the three areas cited above, then the patient has the disease the area represents and if no dullness appears then the patient is free of those diseases.

There are other areas for other diseases, just as there are other areas for all diseases, by which the physician can determine, according to resonance or dullness, the various organs or parts involved in the diseased process permitting him to place his finger upon the exact spot where the disease is operating. Not only can disease be detected at its very beginnings and often before the patient is conscious of his condition, but we can also measure the degree of intensity or potency of the disease. This is useful, later, in determining the results of the treatment given.

In conducting an examination a few other simple directions are required; such as the patient standing with each foot upon a metal plate, either sheet iron or aluminum, and which plates are "grounded" to the earth by insulated wires connecting them to gas and water pipes; the patient must be stripped to the skin as far as the waist or hip line and stand with arms and finger extended in the sides; must face the geographical west.

The examining physician sits facing the torso of the patient and uses his fingers as plexor and pleximiter, making firm pressure with the second finger upon the flesh and by short, quick and sharp blows with the end of the second finger of the other hand upon the first joint of the finger used as a pleximiter. With a knowledge of the various areas to be examined he proceeds to percuss over these and according as he finds resonant or dull sounds does he recognize the presence or absence of disease in the patient.

It is impossible in this paper to go into further details of the Abrams Electronic examination and I have stated this much simply to give, briefly, an outline of the method, a method that will mean to the users a more accurate diagnosis of disease conditions and permit more intelligent and successful therapeutic measures to be instituted to bring about recovery.

Without this correct diagnosis, a diagnosis from which every element of guess work is eliminated, there cannot be intelligent and successful treatment or any certainty of absolute relief or cure.

The Abrams Electronic method has been sufficiently used and tested by the profession to prove its invaluable worth as a scientific method of diagnosis—just as the Electronic treatment has proven its dependability. There is yet a great deal of pioneering work to be done before the profession fully adopts these methods but that its value is being understood and appreciated is shown by the fact of rapid increases in the number of physicians who are adopting it, not only in this country but also abroad.

If opportunity and time permit the writer hopes to present a paper going more into details and also show how diagnoses can be made for physicians by their simply sending, to those qualified and authorized to make such examinations, a small specimen of the dried blood of the patient. In the present paper I have hoped only to stimulate the interest of progressive members of the profession who would welcome a method that will give mathematically scientifically correct diagnoses of disease.

Commonwealth Building.

ACCIDENTS AND COMPLICATIONS OF FISTULA OPERATIONS

CHARLES J. DRUECK, M.D., Chicago.

DISCHARGES of Intestinal Contents Over the Operative Field. This is one of the most annoying accidents during a rectal operation. A large sponge should be prepared and passed into the rectum to provide against this, but with even this protection fluid will sometimes be forced through. To prevent this accident the bowels should be thoroughly cleansed the day before the operation and an enema given not less than six hours prior to the hour of operation.

When the field has been soiled the operation must be stopped, the sponge plug removed, the rectum irrigated with sterile water or normal salt solution, a new plug introduced and the wound thoroughly cleansed.

Hemorrhage. Hemorrhage during fistula operations need not be serious. If an artery be cut high in the rectum it should be grasped with a hemostat and a ligature thrown around it. If the ligature cannot be fastened a couple of sutures may be passed beneath the vessel and the wound closed. If that cannot be done the hemostat may be left in place for twenty-four to thirty-six hours. Some operators depend upon packing to control bleeding, and if carefully placed this is usually satisfactory. I use very little packing but prefer the other mentioned methods. Diffuse oozing may be checked with saline compresses held against

the surface. All oozing and excessive hemorrhage must be controlled before the dressings are applied, and until so controlled the patient must be kept under the anesthetic.

Hemorrhage is particularly liable to follow operations performed under local anesthesia. The first effect of cocaine is to contract the arterioles which lessens the hemorrhage during the operation, but the paralyzing after effect makes secondary hemorrhage a danger as the parts sometimes bleed excessively. Therefore, it is well for patients who have submitted to operations under cocaine to remain quiet for one or two hours afterwards until the after-effects of the drug wears off and the parts regain their normal tone.

Stypics such as alum or perchloride of iron are undesirable. The clot thus obtained is fragile and easily displaced at subsequent dressings and they accomplish nothing but what is better met with compresses or packing.

If ligatures have been applied the subsequent dressings must be carefully handled so as not to slip the ligature off and cause secondary hemorrhage.

Anesthesia. It should be remembered during rectal surgery that when the sphincters are stretched deep respirations are excited and the anesthetic mask should be removed at that time, or otherwise there is danger of too much anesthesia being suddenly inhaled and overcoming the patient.

Retention of Urine: In nearly all rectal operations temporary retention of urine occurs as a result of the manipulations and trauma which causes edema and congestion of the periurethral tissues. This swelling, in turn, constricts the urethral lumen. Sometimes retention is caused by spasm of the compressor urethrae and the neck of the bladder. Branches of the long pudendal nerve supply both the sphincter and the compressor muscle. In all operations upon the anterior quadrant of the rectum there is danger of injuring the urethra. As a result of this swelling the urethral lumen is constricted to such an extent that it may be impossible to introduce a soft rubber catheter into the bladder and a silver catheter may be needed. Both types should be on hand. Repeated efforts should be made by the patient to urinate voluntarily before attempting to catheterize him. Some men patients must get on their feet to urinate. It is well to wait twelve hours after operating before catheterizing unless the patient suffers from distention of the bladder. Do not wait too long as cystitis and atony of the bladder may follow prolonged retention. Firm packing of the rectal wound may cause retention of urine and may also make the passage of the catheter impossibl In such a case the packing must be remove when not infrequently the patient can urina without help. It is well to give urotropin, 6 to 100 grains daily, for two days before all re tal operations because catheterization is likel to cause sepsis.

Involuntary Defecation: If the colon h not been well emptied before the operation t patient will have an urgent desire to defeca as soon as he recovers from the anesthetic; the bowels may move involuntarily before he awake. In such a case when the wound h been soiled, the whole anal region and buttoc should be thoroughly cleansed, carefully dri and fresh dressings applied. When the patien having recovered consciousness, complains repeated desire to defecate, he should be pe mitted to do so, or at least try once. If he h been properly prepared nothing will be void or at most only a little gas or liquid, and will be much relieved. If there has been concealed hemorrhage, which has filled the re tum with blood and is causing the tenesmu he will void clotted and free blood, and, course, requires immediate attention.

Shock: Shock may follow any fistula ope ation, especially if the patient has suffered long suppurative siege, and also when t cautery has been used. This danger of sho is one of the chief reasons for not using t Paquelin cautery in extensive fistula. The lo of blood from operations performed with t knife is not nearly so likely to produce sho as is the actual cautery. The loss of blo cannot be replaced with saline rectal injectio but the patient must be given hypodermicly or intravenous injections. Otherwise the tre ment of shock and hemorrhage following rec surgery is the same as laid down in all wor on general surgery.

Sepsis: Acute sepsis following rectal op ations may develop within a few hours. It s seldom comes on later than the third day. appears usually as a diffuse periproctitis a the possibility of such sepsis renders it impe tive that every antiseptic precaution be tak with rectal surgery. Another form of sepsis that where secondary abscesses develop and which prompt incision and drainage is in cated.

Prolapse of Hemorrhoids and Mucous Me brane: Sometimes following a fistal op tion, because of the stretching or cutting the muscle or the tenesmus afterwards, th results a prolapse of internal hemorrhoids o the anal mucous membrane. If this mass f into the wound it will retard or prevent h ing. This procidentia is usually only temp ary and is relieved by astringent ointments

local applications of hot fomentations. If the prolapsing tissue is removed there is danger of the wound becoming infected if the abscess and fistula are recent. In such a case it had better not be removed unless it is situated just above the angle of the wound, when it necessarily must be excised. In chronic fistula where there is very little suppuration the hemorrhoids may be removed.

Failure to Heal: If the burrowing continues after the fistula operation it is evidence that some small focus has been overlooked or a branch not laid open, or the dressings have been packed too firmly and drainage prevented. When it does occur the burrowings must be promptly and freely laid open, their full length. Goodsall says, "The onset of pain in the wound later than eighteen hours following the operation is suggestive of extending burrowing. This pain is throbbing in character, associated with chill, fever and swelling near the wound."

Caries of the coccyx or even of the ischium is not an infrequent cause of persisting fistula and unless this is discovered and dealt with a cure is impossible.

Protracted Suppuration and Extensive Burrowing: If after a careful operation for fistula suppuration continues it is usually due to some underlying constitutional disturbance as syphilis, Bright's disease, diabetes, cardiac disease or anemia. These conditions should all have been looked for before an operation was performed. Usually where any of these exist no radical operation should be attempted, but our efforts confined to relieving the patient by enlarging the external opening enough to provide free drainage.

A certain small proportion of fistulae are tuberculous, it is astonishing how readily healing takes place after operation in the majority. When it does not the operation wound remains open and gaping, but the fistula as such may no longer exist.

30 North Michigan Avenue.

Red Letters.—Dr. Henry Waldo Coe, editor of the Medical Sentinel, does not use underscoring in order to emphasize his writing. He does, however, print a red border around the editorials he wants you to notice particularly (and reprint in your journal). His latest red border editorial on the "Old Man's Darling" is too long for us to copy in this issue, but we advise our readers to secure a copy of the Medical Sentinel for February, and read this very excellent solution of this very delicate and much discussed question. One would imagine Dr. Coe was a man of wide experience along these intimate lines.

THE TESLA COIL

By DR. OMAR T. CRUIKSHANK,
Pittsburgh, Pa.

IT GIVES me great pleasure to be with you on this, your third annual convention. What I have to present to you is not new, except that it has been so long neglected and forgotten, and not appreciated by physicians using electrotherapy, or by the manufacture of therapeutic equipment. Of course, there are a number of X-Ray and small treatment machines, using various forms of Tesla coils, on the market.

The particular device to which I wish to call your attention was first worked out and used by Dr. Frederick Finch Strong, instructor in Electrotherapeutics at Tuft's College Medical School, Boston. In 1903 he wrote a small book entitled, "A System of Technique for the Therapeutic use of High-Frequency Currents." In 1908 Rebman Co., of New York, published a book by the same author, "High-Freqency Currents Strong." This book should be in the library of every Physician using electricity in treatment. Dr. Strong's outfit would be classed as a Tesla machine although quite different from any of the various coils described by Nikola Tesla in his first published lectures. Tesla was the first to demonstrate the possibility of passing High-frequency currents of heavy amperage through the body with safety, and he recognized the wonderful therapeutic possibilities of their use.

The subject of this paper is "Tesla Coils." But first I wish to call to your attention, the three posts invented by Dr. Strong, as their use is quite necessary in obtaining several of the most valuable modalities from a Tesla outfit. These consist in adding a "Dummy" post between the two terminal posts. The addition of this extra post, in connection with the double spark gap one between two disks and the other between two balls gives added range and a very convenient means of controlling the current, and interrupting it.

About 10 years ago, I built a 3 K. W. closed core transformer, operating a d'Arsonval spiral of twenty turns of 00 copper wire, 12 inches in diameter, spaced one inch for diathermy giving up to 3000 ma. Using this same 3 K. W. transformer, operating a Tesla coil, Primary 16 turns No. 0 copper or aluminum each turn spaced seven-eights inch apart, 36 inches in diameter.

Secondary—One layer No. 24 enamel cotton-covered wire, spacing each turn the thickness of a No. 24 wire, diameter, 17½ by 74 inches long.

Condenser—Fifty glass plates, 16x19 inches, covered with tinfoil on both sides, 10x13 inches.

For series parallel type 200 plates, 100 in each unit.

This coil gave almost a three-foot spark, and would pass sixty milliamperes through a patient, and with the patient on an insulated platform would produce an electrical aura sufficient to light a vacuum tube eight feet from the patient, and with one or two valve-tubes in series gave a very good unidirectional current.

This coil was equipped with the three terminals used by Dr. Strong.

Quotation from Dr. Snow's very valuable book on high potential currents, which I hope you will keep carefully in mind, is:

"The disposition of numerous writers to pay tribute to the currents of high potential and great frequency and to ignore the high potential currents and discharges of lesser frequency is to be regretted, for the field of application for currents of high potential and low frequencies is as large, if not larger, than the former. It is certain, however, that there are indications for the employment of high-potential currents of various frequencies."

I hope to be able to demonstrate to you the possibility of obtaining, practically any Frequency, any Amperage, and any Voltage we care to use for treatment, from an outfit, simple of construction, easy of operation, of very moderate cost, and durable.

In designing this outfit, I placed a limit of these requirements, a voltage limited to an 8-inch spark. As that will give a good short brush discharge of two or three inches, which is a convenient length to handle. My original machine would give a brush discharge of 12 inches to 15 inches and charge an insulated patient so that one could light up a vacuum tube held eight feet away, and ten-inch sparks were easily obtained from any part of the patient. As to Amperage I consider 5 Amps. or 5000 ma. as the limit for therapeutic purposes. As to Frequency by adding a mechanical interrupter, we can interrupt the high frequency current the same as we use an interrupted sinusoidal current using as slow an interruption as wished. I prefer about sixty to the minute for most treatments of voluntary muscles giving a half period of make and a half period of break.

This gives a good full contraction and time for relaxation by using the spark gaps, either between the balls or disks we have a very wide range of frequencies. By changing the inductance of the primary, by changing secondary coils, we obtain another wide range of frequencies. And if we wish extremely high frequencies remove two of the Leyden jars. But this is rarely necessary as these currents with four jars seem to be as high as practical use would require.

Tesla, in order to produce a high frequency current, started with an alternating current, of low frequency, say 60 cycle, the voltage is stepped up with an iron cored transformer, either open or closed core, any voltage may be used from 500 to 60,000 for charging a Tesla coil. but the lower the voltage the higher the amperage, and of course the higher the amperage the harder it is on the spark-gap, and the larger the condenser required. In the type "F" machine, being used for test the voltage on the secondary of the transformer is about 40,000, so a small spark-gap and small condensers may be used to obtain a heavy current. The frequency is stepped up by means of a multiple spark-gap, and condensers or Leyden jars, from the bottom of these jars the current passes to the primary of the Tesla coil.

No iron core is used in the Tesla coil. In constructing Tesla coils the primary of heavy wire, ribbon or tubing may have from three to twenty turns, and the secondary from ten to several thousand turns, depending on the voltage wished. But this is not in direct ratio of the number of turns as in an iron cored transformer. If we know the number of turns in the primary and secondary of an iron cored transformer and the primary voltage, we can calculate very accurately the secondary voltage, but not so in a Tesla coil. In a Tesla coil insulation is the most difficult thing to overcome, and it is impossible to work a Tesla outfit at its highest efficiency without having it entirely immersed in oil, and the very best oil at that, will not hold the current and prevent leakage. In fact no insulation on the market today will preveent leakage from a Tesla coil. So the easiest way is to build it open to the air and let it leak.

Next in importance to insulation is resonance. This is accomplished by adding or subtracting capacity or inductance or both, in much the same manner as a violinist carries the effective length of a given string to produce different tones. It is understood that even the slightest change in the capacity or inductance of a circuit changes its electrical dimensions and also changes the period or rate of vibration. The actual vibrations in the circuits are caused by the surgings of the discharge from the condenser, or as is more often termed, the oscillatory discharge of the condenser.

Resonance means the attuned, or syntonic relations in and between the condenser and the inductance, and between the condenser and the transformer. The gap, is of itself, a minor item, the essential features being an ability to handle the full discharge currents without undue

heating and to be of the proper length so that the condenser is properly charged and discharged. The main tuning, then, must be done by increasing or decreasing the number of turns of the primary of the Tesla. Now a wire or tube conductor, such as is used in these coils has both capacity and inductance, though the latter is in great excess so that the capacity is nearly negligible. In a like manner, the condenser of itself consists essentially of capacity. Even the connecting wires between the condenser and the inductance have capacity and inductance, also resistance, so that in order not to materially affect the resulting oscillations they must be made very short and of large size so as not to impede the high frequency oscillations.

When the resistance of the discharge circuit exceeds a cetrain value the charge will not oscillate.

Capacity may be defined as that property of a conductor or circuit by which energy can be stored up in electrostatic form.

The capacity of a condenser is found to vary:

(1) Directly as the area of the opposed surface and the ability of the dielectric to conduct electrostatic lines of force.

(2) Inversely as the separation of the plates.

Reactance and Impedence.—When a coil of wire is connected to a source of direct and then to a source of alternating current of the same voltage, the flow of current (in amperes) will be considerably greater with the former connection than with the latter. This is due to the fact that the counter E. M. F. of self-induction in a direct current circuit is only momentary, the effects being observed when the current is turned on and off, whereas in a circuit carrying alternating current, the effects of self-induction are continuous and the back pressure resulting therefrom must always be considered to determine the strength of current.

The flow of a direct current through a given circuit is opposed only by the ohmic resistance, but the flow of alternating current is impeded by the counter electromotive force of self-induction as well as by the ordinary resistance. The extra resistance of self-induction is termed reactance, and is expressed in equivalent ohms. The combined opposition of reactance and resistance in any circuit is termed impedance, and accordingly the flow of current through a circuit carrying alternating current is governed by the impedance and not alone by the ohmic resistance. It should be understood that the counter E. M. F. of self-induction entails no loss of energy in an electric circuit as does resistance (where the energy is lost in the form of heat), but a higher voltage is required in that circuit to force a given value of current through it.

The flow of alternating current is nearly always controlled by coils of high self-induction which are termed reactance coils or chocking coils.

The reactive pressure occasioned by a circuit loaded with inductance is termed inductance reactance.

Capacity Reactance—To distinguish these counter E. M. F.'s, the reactance occasioned by inductance is expressed as positive reactance and that by a condenser as negative reactance.

Where we have two circuits, like a Tesla coil where the current is transferred by magnetic induction from one circuit to the other, the secondary circuit should contain a certain amount of inductance and capacity of such values that inductance reactance and capacity reactance neutralize one another. The second circuit is then said to be resonant to the impressed frequency and the flow of current is governed solely by its resistance.

If any given oscillation circuit, a certain critical value of resistance is exceeded, the discharge of the condenser will not be oscillatory.

So in a Tesla coil we use heavy wire with very small resistance, then the frequency of the oscillations can be varied over given practical limits by variation of either the capacity or the inductance. And as in these machines we ordinarily use a fixed capacity, (four jars). The easiest way to change the frequency is by changing the number of turns of the primary coil. Adding turns decreases the frequency of the oscillations, while reducing the number of turns increases the frequency. By using two jars in place of four the frequency is increased, but causes so great a stress on the jars that they will seldom stand up very long.

Or by connecting all four jars in series the capacity is reduced to .00025 mfd. While with the jars in multiple series as ordinarily used the capacity is .001 or four times as great.

Condenser is a device which stores energy and in its simplest form it consists of two coatings of tinfoil separated by an insulating substance, such as air, paper, glass, or oil which is called a dielectric. The two coatings are insulated from each other as far as metallic connections are concerned and if they are charged by means of an induction coil or transformer they will discharge with a brilliant crackling spark when connected through a suitable gap. Now this discharge occurs so rapidly that it appears to be a single discharge, but it is in fact made up of a number of rapidly oscillating discharges, first in one direction and then in another. During this process the polarity of the charge on the two coatings is rapidly reversed

so that a given coating is first charged in one polarity and then in another at a higher rate. The vibrations from the discharge are called oscillations and gradually die out with more or less rapidity according to the degree of damping. The spark gap causes damping because it offers resistance to the oscillating current. The time taken by an ordinary discharge is generally a small part of a second, but during this small space of time there may be as many as 100,000 to 1,000,000 oscillations. Now the nature and amount of this charge depends on the dielectric rather than the coatings employed. It has been definitely established that the charge of a condenser resides on the respective surfaces of the dielectric and not on the coatings or tinfoil. When a condenser is charged and the coatings removed, tests will show that they are not electrified to any appreciable extent, but if they are returned to position to form a complete condenser with the same dielectric, they will form a highly charged condenser again. The dielectric of a condenser actually undergoes a strain and as in the case of mechanical strains, this results in heat after a time, often burning holes in the glass of our jars or plates. The two coatings of a condenser are always charged oppositely, that is when one coat is charged positively, the other is charged negatively. These charges in oscillating back and forth travel at a speed of 300,000,000 meters per second or the speed of light. When a condenser is charged by a transformer, there are four stages as follows:

1. First quarter cycle, condenser coatings are charged to the potential of the impressed E. M. F.

2. E. M. F. decreases during the second quarter cycle so the charges on the coatings rush back to the transformer. (A discharge occurs in the spark gap at this point, resulting in oscillations as has just been described).

3. Third quarter cycle. Same as the first quarter cycle except that the direction and polarity of the charge is reversed.

4. Fourth quarter cycle; same as second quarter. A second discharge occurs in the gap.

There are two discharges at least for each cycle, or if the frequency of the transformer is 60 cycles there will be at least 120 discharges per second. The higher the frequency of the impressed E. M. F. is, the greater will be the power of the circuit including the capacity, because of the increased rate of change of flux.

Increasing the capacity also tends to increase the current, because an easier path is presented to the lines of force, which increases the rate at which the charges are transferred.

Although a capacity, or condenser, is an open [illegible] their apparent conductivity is directly proportional to their capacity and the freqeucy of the E. M. F. Conversely, their apparent resistance, called capacity reactance, is inversely proportional to their capacity and the frequency of the E. M. F. and when the E. M. F. follows the sine wave the rectance is inversely proportional.

Since inductance causes the current to lag and capacity causes it to lead, inductance and capacity can be used to neutralize each other.

When the capacity reactance exactly equals the inductive reactance, the circuit is said to be in resonance.

Or if the reactance is made zero by balancing the inductance reactance and the capacity reactance, then the only opposition to the flow of the atlernating current is pure resistance, no power is lost in overcoming reactance, and the current and voltage are in phase.

All coils have a certain amount of distributed capacity which will resonate with the inductance of the coil at a wave length called the natural wave length of the coil. At all other wave lengths this capacity adds to the capacity of the condenser which is connected around the coil when resonance is obtained.

This is the simplest form of the Tesla coil that can be constructed and anyone of you can by following these simple instructions very easily make at a very moderate expense an attachment which when used with either the Thompson Plaster Oil Immersed type "F" or the Victor Wantz machine will give currents and range of current and a variety of modalities, that would be very difficult to duplicate by any combinations of machines on the market.

Practically any voltage, any amperage, and any frequency, can be obtained that are of value in the practice of High-frequency therapy. With the proper secondary coil a very good current can be obtained for working any High-frequency X-Ray tube.

The outfit consists of a frame made from the very best kiln dried lumber obtainable. As per specifications which will be read if we have time and you are interested in these details. This frame gives a clear inside space of 12½x 25 inches, allowing the use of a 12-inch Primary and any number of turns of primary up to 40 turns, and Secondaries, 24 inches long any diameter up to 10 inches. The reason for making it so large was to give all the voltage we could wish for. And a primary 12 inches in diameter, gives ample room for a second primary attached to a small secondary coil to be slipped inside forming an ideal oudin resonator actuated entirely from induction entirely free from any contact with the machine, furnishing an extremely mild spray or brush discharge. In

making a Tesla coil everything depends on insulation and up to the present time no insulation has been found which will really hold a Telsa current. So in making this outfit we depend entirely on the air space for insulation. Hence it is not necessary to use insulated wire for the primary; besides for the **OUDIN** resonator it is quite necessary to tune the primary to resonance as one turn too much or too little will give a difference of from a spray of 1-16 to a full spray of four or five inches. So the easiest way is to have one side of Primary connected permanently while a clip allows contact to be made on any turn required. In an iron cored transformer the difference in ratio between primary and secondary turns determines exactly the voltage obtained from the secondary. In a TESLA coil the insulation and resonance are of much more importance than the actual number of turns.

Of course a TESLA coil may be immersed in oil, but there are many objections to using oil for our purpose, and it is not necessary. But speaking of oil immersed Tesla coils, calls to mind one I built some ten years ago, I had a large coil giving about three feet of a clear jump spark, which, of course, meant all the voltage necessary, but small amperage, so decided to build a coil especially for heavy amperage. After spending enough to build half a dozen of the present coils and an immense amount of work, the best current obtainable on test was through the secondary posts, which consisted of the very best soft rubber tubing two inches in diameter, with ¼-inch hole, making almost an inch of solid rubber, beside the insulation of the No. 10 wire. Through all this heavy rubber insulation came a fine brush discharge almost as great as from the end of the bare wire.

Theoretically, the current should have been more than a hundred amperes, but it would very little more than light up an ordinary vacuum tube.

And this brings out a very interesting point in regard to Tesla coils, that is: The possibility of obtaining many times the apparent WATTAGE from the secondary of the Tesla that we are using on the primary or step-up transformer. It is possible to obtain as much as 800 times the current from the terminals of a Tesla coil that we are using for a primary current. At a first glance this would show we had all the possibilities of perpetual motion, getting many times more out of a machine than we are putting into it. But on careful test we find it is only apparent and that for actual work (like any other machine) we get a little less than was put into it. The reason for this phenomenon, is that because the discharge frequency is very high compared with the frequency of charge, the duration of discharge very short, and the damping very great; the decrement very small, so that the oscillation dies out very rapidly. And we get an enormous oscillating current compared with the charging current. This phenomena is not restricted to the secondary of the Tesla as the primary when used as a d'Arsonval spiral will give the same, in fact, bridging only two or three turns and shorting through a low resistance will show an enormous amperage compared to the primary current of the outfit.

A word to the physician contemplating the purchase of a high-frequency outfit. Buy the most powerful outfit obtainable, as it is just as easy to learn how to use a high-powered outfit as one of moderate power, and the high-powered outfit can be used for the most delicate treatments you will ever care to use, and when you need a heavy current for treatment you can get it without forcing the machine to the limit. For continuous service, the high-powered machine is the only one. Of course, for light skin treatments, such as the various vacuum tube treatments, any high-frequency machine will give some results. The so-called "Violet-Ray" machines cannot be used for Diathermy, Autocondensation, or, for deep therarpy of any kind. And positively do not give any ultra-violet rays.

Of course, the small machines will light up the various vacuum tubes and for light superficial treatments of the skin and scalp will do fairly well, but do not expect any effect or benefit on the deeper structures.

Three amperes or 3,000 milliamperes is more than is usually necessary in treatment. But the ideal machine would have a rating of 3 KW and a guaranteed output of 5,000 ma. or 5 amperes for diathermy. A machine built to these specifications will give continuous service for years and at any time will produce all the current necessary for the best treatments.

One KW machine using 9 amperes, 110 volts 60 cycle, will give enough current when new, but after being used a short time will have to be pushed to the limit to get enough current for proper treatment, will heat up, and be a source of disappointment.

So if you are going to buy a machine, buy the BEST.

Health Survey.—The County Medical Societies of St. Louis and Kansas City, assisted by the city health departments, are conducting a health survey among the children, furnishing free treatment and surgical aid where necessary for the indigent inhabitants of those cities.

LECTURE AND CLINICAL DEMONSTRATION OF RADIO-THERAPY IN THE TREATMENT OF TUBERCULOSIS

JEFFERSON D. GIBSON, M. D.,
Denver, Colo.

Gentlemen: It gives me much pleasure to meet with you today, and discuss with you the subject of TUBERCULOSIS. The time has not arrived, yet, in a general way, when the physician can cheerfully, and with a light heart, break the news to his friends and patients that they have Pulmonary Tuberculosis. To the general public, and to the physicians generally, there is always a real seriousness attached to the very name Pulmonary, and other forms of constitutional Tuberculosis.

You physicians know, unless my claims are true, and proven true, that there is no such thing, heretofore discovered and in use at the present time, that is a specific, or is capable of producing a specific or positive effect whatever in Pulmonary Tuberculosis. In other words, I want to impress upon your minds the fact that, unless the agents I am demonstrating to you today will and can produce specific effects upon the Tubercle Bacilli, we are absolutely and positively incapable of producing specific antigens, antibodies, or any kind of specific results in the fight against the wax-coated tubercle bacilli." This was proven very plainly in a discussion I heard a short time ago, headed by a very prominent pathologist, in which he claimed positively and definitely that there was no value at all in the "Complement Fixation Test of Pulmonary Tuberculosis," simply for the reason there was no specific complement to fix. So, if you have no specific complement, how could it be fixed? Also, what would be the value of fixing the complement of sofe other attending infection? I am simply stating this to show how really little there is besides rest, climate, special feeding, hygienic surroundings and systematic medical care in the treatment of Pulmonary Tuberculosis.

A short time ago I was treating a physician, who was in the Naval Service as a Surgeon of the United States Navy two or three years ago, when he contracted Tuberculosis following influenza, and some one asked the question, "This man having all power and information of the United States Government behind him, why was his case allowed to progress to the unfavorable state he was in at that time? This physician, confined to his bed for months and months in some of the largest Tubercular Hospitals in the world, failed to improve, after many months of treatment, was sent to Denver and put in a large Sanitarium. After remaining his full time there, was sent to another Sanitarium; and finally came into my hands with daily chills and temperature from 102 to 104.

The reason, gentlemen, this man was not cured is a simple demonstration of the fact, that up to the present time there is no general approved method of treatment, or agent, that can be depended upon to absolutely "cut short," abort and cure active fulminent cases of Pulmonary Tuberculosis, whether they are of the general Military, Pneumonic, Bronchial or Interstitial Types. So, I bring before you a method of treatment today, which I hope to be able to demonstrate, can be used in such a manner as to produce definite and positive effects in the infections of the wax-coated Tubercle Bacilli.

Before making the clinical demonstrations, I wish to run over, in a very brief manner, some hypothesis, or a few theories, giving you an idea upon what we base the claims already made for the production of specific results by this method of work.

All of you, gentlemen, doubtless know I have been using X-Ray for a great many years in the treatment of Pulmonary and other forms of Tuberculosis; and that I have watched its effects in the daily treatment of thousands of cases, and, after many years of experience, based upon the facts involved in the treating of these cases, I have come to the following conclusions, and formed some hypotheses or theories, you might say, along the lines of which I will endeavor, in a very brief way, to point to you why we are able to produce definite and specific effects in treating infections of the acid-fast or Tubercle Bacilli. The following dosage of X-Ray is recommended for this work, viz:

2ma. x 10 to 14 inches distance x 10 minutes, with spark gap 6 to 9 inches, given alternately every second day, over back and front of chest, so as to get the strongest rays over the worst parts of lung infection.

FIRST, X-Ray has a two-fold effect:

A. Upon the Tubercle Bacilli.

B. Upon the Blood and Tissues of the Host (Both Normal and Pathological).

Primary Effects of X-Ray Upon the Tubercle Bacilli

Under this heading, we will discuss, in a very brief way, the Effects of Roentgen or X-Rays upon the acid-fast or Tubercle Bacilli:

1. The inhibiting influence of X-Ray upon the propagation of the microbes; which I think I can say is a well-known fact and accepted by all Radio-Therapists.

Read before the Western Electrotherapeutic Association, Kansas City, Mo., April 23, 1921.

2. It has a destructive effect upon the Bacterial Ferments, thus interferring with the food supply of the bacteria.

3. The vigor and vitality of the Bacilli is lessened by the steady influence of X-Rays.

4. The effect of X-Ray is both chemical and irritant; also electro-mechanical.

5. X-Ray ultimately causes death of some of the bacilli, and weakens all wherever found, even in the encapsuled or hardened tubercles, where nothing else can reach them.

6. When the bacilli are weakened and devitalized, even in the encapsuled tubercles (or when enclosed in fibrosed areas) Natural Forces will absorb and eliminate much of this exudative condition, making it possible for the Natural Defenses of the body to reach, engulf, destroy and eliminate these weakened, devitalized or dead bacteria.

7. The production of Vaccine through the elimination of the enfeebled or dead bacilli.

8. Vaccine production from the whole bacilli, wax, protein, fatty substances, etc., can be made in great quantities and produces positive and decided constitutional effects.

B. Effects of X-Ray Upon the Lung Tissues of Host

1. The X-Ray when applied to the chest, as above described, produces a rather pleasing sensation and seems to quiet and soothe the patient physically and mentally.

2. There is produced, we know, changes, more or less, in every tissue of the body, anteroposteriorly, from skin to skin, front and back.

3. The chemical and physiological changes, capable of being made through the influence of X-Ray upon all tissues of the chest, through which it passes, both normal and pathological; gives us a definite and direct basis for our work in the treatment of Pulmonary Tuberculosis.

4. These changes made by X-Ray through the tissues of the chest are different from the effects produced by all other forms of known energy used in the treatment of these conditions.

5. While most all of the physical agents as Heliotherapy and all other forms of radiant energy and other vibratory and chemical agents produce most of their effects upon the animal tissues in a secondary manner; X-Ray produces, at first, strictly primary effects, which are followed by reactions, or secondary results.

6. These results produced by X-Ray can be controlled positively, giving effects from the very slightest stimulation, and can be increased in a definite manner until all of the energy that is needed or desired has been obtained.

7. As this stimulation is carried, in gradually increasing doses, far and wide into all of the tissues of the chest, especially in the pleura, bronchial tubes, Mucosa, heart, mediastinal regions and lungs, from apex to base, the tissue cells are invigorated and strengthened by this continual stimulation. Even the normal cell metabolism is increased, and the anabolic and Katabolic reactions are intensified and the increased nutriment from the hyperaemia, or blood supply, dependent upon the increased stimulation, causes an increased vigor throughout all normal cells brought under the dominating influence of the X-Ray vibrations.

8. When this hyperaemia and engorgement of the lungs arrives at a certain point, it will be found that the blood is filled with new contents, or the ordinary contents of the blood stream are modified and changed to meet the special condition, or the Tubercle Infection to be treated.

9. If we examine the blood after this state of hyperaemia has arrived, we will find there has been many changes in regard to the white blood corpuscles. As the micro-phages and polynuclear leucocytes are of very little use in the fight against wax-coated, acid-fast bacilli, we will find they have been considerably reduced; while the macro-phages have been increased, especially the one great scavenger, "THE LARGE MONONUCLEAR LEUCOCYTE," the especial scourage of the acid-fast bacilli. This especial leucocyte, "The Large Mononuclear," can be increased and maintained in the fight against the tubercle infection, from one to two thousand per cent.

10. The ability to increase enormously, the production of this Large Mononuclear Leucocyte, which, all authorities agree, seems to be Nature's special Leucocyte prepared for the especial purpose of defending the tissues of the body from the invasion of the wax-coated, acid fast tubercle bacilli, centers the whole hope, you might say, of our being able to produce definite and specific effects in the treatment of Pulmonary Tuberculosis.

11. We have a great increase, correspondingly, you might say, in opsonins, or complements to aid this phagocyte in the destruction of the tubercle bacilli, produced probably by the same agents, or combination of agents, that cause the great increase of this phagocyte.

12. Through the production of great numbers of the Large Mononuclear Leucocytes, and their ability to engulf, destroy and eliminate great quantities of the whole tubercle bacilli into the lymphatic and blood streams, as toxins and antigens, which are compelled to act as whole tubercle antigens, or endo-toxin antigens (a simple way of putting it) we lay the ground-work for our claim of auto-anti-

endo-toxin antigens and the formation of auto-anti-endo-toxin ambocepters, compliments and ferments; giving us an endless chain of complete, definite and positive autogenous anti-endo-toxin vaccine formation, which, if it is a fact, gives us a definite and positive specific for Tuberculosis.

13. X-Ray is the only agent known capable of producing this great increase of the Large Mononuclear Leucocytes with all of their attendant virtures.

14. X-Ray, when properly used, is capable of preparing the tissues as a great "Battle Ground" to the great advantage of the host, upon which the Natural and augmented defenses of the body can meet the invading host of microbes with tremendous advantage in the great contest to be decided—which really is recovery or death of the host.

With this brief epitomization of Radio?Therapeutic possibilities, brings us to the suggestion of specific autogenous vaccine production in the treatment of Tuberculosis.

As your attention has been called in the early part of this paper, that at the present time (my work not to be considered) there is not a single definite and positive specific in the whole realm of Tubercular Therapy. From the facts just epitomized, to which I have called your attention, I believe there has or will be proven definite specific advances made in the control of Tuberculosis; and results can be obtained sooner or later that will be able to remove the great "sting" from Tuberculosis, and rob the grave of hundreds of thousands of human beings annually.

As I do not wish to bore you with old arguments, I am going to report to you three very interesting cases, in which advances second and third stages of Tuberculosis (all desperate cases) have been so definite and positively cured, that they have been able to have children and go through the perpurim with perfect safety and with no un-toward effect; in which the children live and seem to be perfectly immunized or free from Tuberculosis, which I do not think can be advised and carried through as an ordinary method of procedure by any other method of treatment.

Case I. Came to me in 1906. She had two brothers-in-law in the city of Denver, who were exceedingly competent physicians and surgeons. After several months her brothers advised her to leave the city, as it did not seem that Denver agreed with her. Some time later she was brought to me for treatment. Her improvement under the X-Ray treatment was prompt and her progress very satisfactory. After five or six months she was dismissed in splendid condition, and the disease seemed practically arrested. Several months later she returned to me, thinking that her condition was again becoming active. She was very sick at her stomach, and feeling badly generally. I commenced treating her and in a few days found her condition was that of pregnancy, instead of an exacerabation of her Tuberculosis. Her condition was so good that I decided not to produce an abortion, but that I would give her more treatment and save her and baby. The result was splendid; the baby proved to be a strong vigorous child, and her brother, who attended her during confinement, claimed that she came out of it perfectly and with much less trouble than she had with her previous children. She never had a particle of trouble following child-birth, never required any more treatment for Tuberculosis, and has been living in the State of Texas in perfect health for many years.

Case II. Dr. . C., Chiropractor, came under my care in 1916, suffering with bi-lateral, second stage Tuberculosis, worse involvement in apex and middle lobe of right lung and considerable infiltration of left upper lobe. There was also considerable involvement of the right illiac region. The appendix had been removed but the pain had never disappeared from her right side, which was more or less thickened or infiltrated, but no specific symptoms. Yet, there was so much tenderness and pain that the side required a great deal of attention, and was much more difficult to get entirely relieved than the Pulmonary condition. At the same time there was a young man under treatment for advanced bi-lateral fibroid Tuberculosis, widely disseminated throughout both lungs. I promised this couple that I would get them well enough so they could get married and raise a family with safety. About eighteen months after beginning their treatment, I gave my consent for them to get married. They were both in splendid condition and much elimination had taken place in their lungs. About eighteen months later a baby boy was born. She made an uninterrupted recovery, and she and baby both have remained in splendid health.

Case III. Mrs. C. A. K. came under my care in 1919, with pronounced Hyperthyroidism, very large goiter, protruding eyes, pulse 130, temperature 102 and 103, and exceedingly nervous. The case was very obstinate and the progress slow, largely owing to the Hyperthryodism, but ultimately improved very much in regard to lungs and perfect result on the goiter. She was allowed to return home and rest for several months, when she was to return to complete Pulmonary Treatment. After

three or four months she developed much nausea, vomiting, and began to lose weight very rapidly. Upon examination, I found that she was pregnant, to which I attributed most of her un-toward symptoms. The goiter was in fine condition, but the lower lobe of the left lung was becoming quite active, and it was evident that the lady would soon be in a dangerous condition. So, after thinking the matter over well, decided not to destroy the pregnancy, but get her left lung well before confinement, and save her and baby also. So, I ordered her to return at once for treatment, and succeeded in getting the left lung in such splendid shape, that she passed through her labor in absolute normal manner and gave birth to a baby girl weighing 10¼ pounds, which was almost twice as large as any child she had ever had before, which I attributed entirely to the X-Ray and Electricity that was used throughout seven months of her pregnancy. She and child are both doing splendidly, and she has almost forgotten the "old-time" danger from Tuberculosis.

I believe the great majority of all women with Tuberculosis can be treated and cured to such an extent as to make pregnancy and childbearing a sane and safe procedure by means of X-Ray.

PROSTATIC HYPERTROPHY

Translated From Med. Klinik No. 30, 1921,
By HERMAN J. BOLDT, New York.

HYPERTROPHY of the prostate is not a general affliction of old age, as Prof. Blum (Vienna) stated in his post-graduate lecture, but a purely local trouble, an edematous new formation in an atrophic prostate (therefore, more correctly, prostate adenoma, and not prostatic hypertrophy!) by the extirpation of which the prematurely aged patient becomes transformed into a vigorous rejuvenated individual

The frequency of the ailment is shown by the statistics of Thompson, who in 200 corpses of men more than 55 years old, found in more than two-thirds of the cases a marked hypertrophy of the prostate. Prostatic dysuria is, of course, not of such frequent occurrence, it does, however, occur in 5 per cent of all men above 55 years. The etiology is uncertain. Tabetic urinary disturbances are much rarer, likewise those in consequence of urethral strictures.

The illness begins with frequent difficult urination, particularly at night; then the patient becomes unable to completely empty his bladder. The desire to urinate is markedly increased, occasionally painful, the general condition disturbed, finally involuntary dribbling occurs, in the beginning only during sleep, and then uroseptic and urotoxic symptoms as the result of renal functional disturbances.

A urinalysis is necessary, to exclude diabetes, beginning cirrhotic kidney, or cystitis. The enlarged prostate is palpable per rectum, but not the middle lobe. In case it is particularly painful, nodular, hard, and asymetric, one may suspect cancer. On bimanual examination one may determine whether the bladder is empty or whether it contains residual urine. In the beginning, nightly sitzbaths, belladonna-papaverin suppositories, purgatives, Marienbaths, prevention of colds, cold feet, abstinence from alcoholic beverages and sexual irritation, will give relief; prostatic massage is useless, urinary antiseptics unnecessary, as long as there are no complications.

In consequence of a cold, emotional excitement, a sexual excess, and so forth, it is possible already in the beginning of the trouble, an acute congestion of the gland may lead to complete urinary retention, which requires immediate catheterization under most scrupulous asepsis, with pelvic elevation.

Spontaneous hematuria may occur in any stage. Frequently only the first and the last drops of urine are bloody. It is evident that also a nephritic hemorrhage (many casts in the sediment), a neoplasm of the prostate, kidney (palpation) or bladder, or a vesical calculus (cystoscopy) must be thought of. If the bladder is much distended or overdistended (tamponae of the bladder) one should introduce carefully, a retention catheter as large as may be consistent, so that the bladder may contract and compress the gaping vessel. As additional therapeutic measures, ergotine may be used subcutaneously and internally; lime, gelatine, hypertonic NaCl-solution, or horseserum subcutaneously, and perhaps prepare the patient for secondary prostatectomy.

Infection of the bladder contents will rapidly make the condition serious (chills, fever, continual, very painful micturition) the urine becomes turbid, purlent and bacterial, alkaline, putrescent, the residual urine increases. Danger is threatening; in the course of a few hours we may have an ascending purulent nephritis and acute sepsis! Therapy: As soon as possible, place a permanent catheter (drainage of the secretions, quiescence of the bladder, at once allay the pain), bladder irrigation (mild nitrate of silver or 3 per cent boric acid) internally urine disinfectants (salol, hexal, salicy) frequently in instances of acute uro-

logic infections neosalvarsan and collargol—intravenous, may be the means of saving life.

During the stage of retention of urine, regular catheterization must be done, under rigid aseptis precautions, despite of profuse diuresis. This, because the residual urine leads to pressure atrophy of the renal parenchyma, and with that necessarily to nephrotic polyuria. But the mucous membranes of the urogenital tract, that have been subjected to increasing pressure for some time, must not be suddenly completely relieved of compression. The distended bladder should be emptied very gradually, daily increasing by 50 to 100 cm.

In the stage of nightly incontinence (Ischuria paradoxa), erroneous diagnoses are frequent, as spinal bladder disturbance (Tabes, etc.), diabetes mellitus, or insipidus because of polyuria and polydipsi, cancer of the stomach because of gastrointestinal symptoms of urotoxemia. Palpation of the lower abdomen suffices to reveal the overdistended bladder, whose summit reaches above the navel. By the following treatment, even cases of long standing may be saved: 1. Gradual emptying of the bladder, taking from 10 to 14 days. 2. Retention catheter for weeks, until all symptoms of urinary intoxication have disappeared. (Thirst, polyuria, loss of appetite, increased rest-N in the blood, etc.) or markedly improved. 3. Operation.

Prostatectomy is indicated in all instances of urinary rentention, or with tormenting annoyance; contraindicated in marasmus, coma, paralysis, serious internal disease (heart, kidneys, tuberculosis, etc.), and in perivesical or periprostatic suppuration. Carcinomatous degeneration complicates more than 14 per cent of all prostatic adenomata.

Carpings of the Cynic

Specialism vs. General Medicine.

SOME think that specialism in all departments of medicine following the passing of the General Practician, is shortly to be the exclusive custom. Some go so far as to say that the new era is here, now—that the newer and the **advanced** and the **modern** has already replaced the "family doctor."

Not so fast, Pauline! At least not without some show of argument.

Let us refer to cases, number and page:

Case I. Take the case of Asthma vs. Specialist. The plaintiff has consulted the——

Well, what specialist should the asthmatic consult? All right, say the chest specialist.

The chest specialist looks him over carefully and says, "You have the asthma, ten dollars."

No, he does not say that, not yet. He says, "I would like to have you call on Dr. Path Ole Gist and have a Vaccine made."

Very well.

Then, when that has all been used up and the Plaintiff in the case is still making himself a nuisance at his home and at the office of the chest specialist,

That night,

About half past,

A severe attack is ushered in and the Plaintiff, sitting on the edge of the bed, gasping for breath, with eyes popping out, looking for the specialist—who does not make night calls!!

Ye gods and graven images!

To whom shall the Plaintiff cry for help?

Next day he drags his weary carcass back to the chest specialist, who says, "You have a protein anaphylactic—something or other—I will refer you to Dr. Stom McSpeshlist.

Very well.

The third specialist treats him until he takes the train to Colorado.

Case II. Chronic Eczema. The Plaintiff very readily sees, after a long course of home treatment christian science, that he must consult the skin specialist, as the hands have become infected and the arms are swollen to the elbows. They look very bad.

The skin specialist has the surgeon come in to take care of the infection, and has a stomach specialist in to arrange a diet and tonic, while he goes ahead with the case.

All of which would be very well for Mr. Ive Gottrox, but with Mr. Average Citizen it would appear on the surface to be prohibitive treatment—three specialists for a case of eczema! None of whom would be expected to call at the home of the patient and relieve him of his luxurious eczematous delerium, if any!

Case III. Mrs. Houze Wyfee burns her face by a flash of gas from the oven. She thinks her eyes are put out. She calls her eye specialist. He cannot come as it is during office hours. He will send one of his assistants if any. The assistant "don't think" the eye ball is injured, but she had better go down to the office and have Dr. Spesh Lysste be sure!

She goes down. "No, the eyes are all right. You would better go home and call your skin specialist and the beauty specialist and the eye-brow specialist."

Case IV. A real case: Miss M., age 32, single, seamstress; complains of attacks of pain at the pyloric end of the stomach; frequent at night; constipated, nervous, loosing weight steadily; nausea, but no vomiting, black blood occasionally in stools. (?) Nights are bad, attacks severe and keep her awake; has to lie on stomach; milk relieves, also soda helps her to go to sleep. She has been down to the hospital for three days, for tests and X-Ray and diagnosis. (Ulcer of stomach).

She previously had been down to the nerve specialist. Diagnosis: Nervous instability, exhaustion, probably change of life. Two months vacation and asafoetida and tonics helped some, but she gained only three pounds.

The dietitian had beautiful results for three weeks when a return attack occurred.

She was going down for the third time when

The Writer,

A General Practician,

'N 'everything,

Was consulted. The history was taken; the character of the attacks and the diagnosis of ulcer of the stomach was excluded. The nervous element, the acne on the face, with suggestion of sexual starvation, caused the family doctor to call by the home and have a private chat with the mother. The facts were obtained that Miss M. was out much at night with a short-term widower, riding in the festive auto, billing and cooing, and finally getting to bed quite late. With these facts the young lady was confronted and accused. She admitted that she allowed him any privilege to the 9nth power—but no further! All of which he freely participated in. Then when she went to bed she had a gastric attack. These causes were placed before her. She agreed to further abstain from such excitement until the marriage should take place.

No further attacks or stomach crises have occurred.

The specialist that this case first needed was the family doctor!

Moral: The family doctor is an institution that will never be replaced or superceded on the face of the earth. And some would add, "in heaven."

P. S. The general practician of the future will treat cases as usual, and, in case the specialist is needed, will say who, when and what specialist; also, will have charge of the case with the specialist assisting!

Oh, boy!

The general practician is beginning to know his groceries and nuts.

HARRY NELSON JENNETT.

Current Comment

Dr. A. C. Vickery, of St. Louis, the new superintendent of State Hospital No. 2, has arrived at his post in St. Joseph.

Dr. J. F. Chandler, Oregon, Mo., has been appointed examining surgeon on the pension board.

Dr. James C. Tucker, formerly of Omaha, has moved to Beatrice, where he is in charge of the eye, ear, nose and throat department of the Hepperlen Clinic.

Dr. Rodney P. Fagen, Des Moines, has been appointed secretary of the Iowa State Board of Health and Medical Examiners, succeeding Dr. Guilford H. Sumner who resigned. Dr. Fagen assumed the office, January 1.

Dr. Walter P. Bowers, who, since 1913, has acted as secretary of the Massachusetts Board of Registration in Medicine, has resigned from that position to accept the editorship of the Boston Medical and Surgical Journal. The board elected Dr. Charles E. Prior, Malden, chairman; Dr. Samuel H. Calderwood, Boston, secretary, and Dr. Nathaniel R. Perkins, Boston, assistant secretary.

Dr. Porter Williams, former superintendent of the State Hospital No. 2, has been transferred to Nevada, Mo., where he has assumed the superintendency of that institution. Dr. Williams has developed an enviable reputation for efficiency and economy in hospital management.

Fire at State Hospital No. 2 On Sunday, January 29, at 1:00 p. m., fire broke out in the roof of the new men's building at the State Hospital for the Insane at St. Joseph. The two hundred patients were safely conducted to other quarters. No one was injured, but the building with its contents was a total loss.

Use of Drugs Not Due to Dry Law.—The statement that prohibition has resulted in an increase in the number of drug addicts in the country has been denied by Colonel O. G. Forrer, administrative assistant in the Narcotic Division of the Treasury Department, who says that victims of the drug habit practically in every instance are young men and women, often in their teens. Rarely are they alcoholics.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald

and Electro-Therapist

Incorporating the

Kansas City Medical Index-Lancet

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The Editors' Forum

Honor to the American Chemical Society.

CHEMICAL research in "The Future Independence and Progress of American Medicine in the Age of Chemistry" has given a beautiful, wonderful and inspiring account of itself. It is coming into its own. The perusal of the report inflames one's imagination and stimulates one's ambition, and for that, if for no other reason, the Medical Herald bows in acknowledgment to chemical science. A comparison of American with the more ancient civilizations of Europe is suggested by the report. Many of the greatest scientists of the old countries, in all fields, have been sons and daughters of old, well established families, who preferred science to society, study rather than pleasure. They have studied deeply, deliberately, profoundly; not for gain, but have become wedded to science, and even in that realm, love conquers all. In many cases discoveries have been incidents to wandering and delving amid the intricacies of Mother Nature. This very fact has added glory to the older civilizations, which we are, at times pleased to call effete.

Americans are, or let me say, have been, money-makers and pleasure seekers. We are now emerging from this shroud and have already made our mark in the world of science. But we need more of the spirit for research, more patience, more love of science, more willingness to explore for exploration's sake, more eagerness to become science archeologists. Not that I would depreciate American effort, American genius, American energy all of which are unsurpassed among the nations. But the scientist is a product of time, generations, of an atmosphere of science lovers and enthusiasts, and progress will be the perusal of such literature as the report issued by the American Chemical Society. While the Medical Herald has not at present writing either query or suggestion, we commend the spirit prompting the issue, and acknowledge the wonderful work accomplished by a group of American scientists. There is need for just such reports to inspire undeveloped American genius—John M. Bell.

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"Adhesive Plaster" 'n' Everything.

SURGEON'S adhesive "plaster"—the spool of Z. O. adhesive—is a great adjunct in the armamentarium of the general practitioner.

It has many uses, and the more you use it the more you like it. However, it is not an unmitigated blessing.

It is not suitable for mucous or moist surfaces.

Adhesive does not stick well to the feet if the shoes are worn, and the patient is perambulent. Covering with a gauze bandage helps.

It has to be removed carefully from delicate skinned people. If left on for ten days or more it may be removed easily—as it "sheds," but if it has to be removed in three or four days it may be loosened by allowing benzine or gasoline to flow between the skin and the adhesive as the latter is slowly lifted. Or, soaking the cloth side will remove the "cloth" side and leave the rubber sticking to the skin. This may then be removed by gently washing with benzine on a cloth. This is not practical.

On applying the adhesive to the chest of a man, the hairs should first be shaved, for, should the adhesive be left until it "sheds," it will yet be stuck to the hairs and this makes it very painful on removal.

Skin cuts closed with strips of adhesive leave larger (wider) scars than when closed with sutures, for the simple reason that the suture brings the body of the skin together along its full thickness, whereas the adhesive

brings only the surface edges of the skin together and leaves the body of the skin to recede or gape.

Healing takes place readily under adhesive closure of wounds, provided, the adhesive is not allowed to come in contact with the line of incision. Subsequently the filled-in area of healing shows a wide, red scar; this is much smaller following suture closure.

Under repeated dressing the adhesive may be left sticking to the skin by cutting loose the dressing end and resticking over the old ends of the adhesive. Have a heart!

Encircling with adhesive is not advisable. There should be "line of clevage." An entire finger dressing, however, may be wrapped snug with adhesive.

Fractured rib — surgeon's adhesive — nuf said!

An umbilical hernia of infant may be cured by using flat cork wrapped in gauze pad held in place with long tight adehsive strips changed every week or ten days.

A bursa on the wrist may be cured simply in six weeks by making pressure with a flat cork, padded, bound on with adhesive over wrist and hand, fixing the wrist and the hand in marked dorsal-flexion and not allowing it to get away from that position in the entire six weeks. With the hand in this position the typist may continue work and get results. No scar is left.

A convenient method for use of the spool of adhesive is to procure a spool three inches wide; snip the end with scissors to start a half inch strip, lengthwise, and tear; unwinding from spool and tearing at the same time. This narrow strip may be used out to the end of the spool leaving the rest undisturbed. However, a second width of say an inch wide may also be started on the same and continued without disturbing the rest. Thus your three-inch spool becomes a supply of three or four widths any one of which you may conveniently unwind.

Your spool should be kept in the original blue box carton to prevent the light from deteriorating the rubber.

See to it that the "assistant" does not "squeeze" the adhesive roll while holding the spool,—but simply holds the spool.

The laity seem to think—that it portends much when they see the doctor adroitly tearing the inveigling, sportive, adhesive ambidexterously and fluently,—that he knows his groceries.

N'everything.

—Harry Nelson Jennett.

Faulty Food in Relation to Gastro-Intestinal Disorder

THE THESIS is propounded by Robert McCarrison, London, England, that much of the gastro-intestinal disorder of civilized peoples of the present day is due to faulty food. In the Journal, A. M. A., January 7, he presents evidence of the incidence of such disorder among civilized communities and of its comparative absence among certain races living under more natural conditions; and contrasts, in general terms, the food habits of the former with those of the latter. He refers to the special relation of perfect food to the functional perfection of the gastro-intestinal tract; and from these sources advances presumptive evidence of the effects of faulty food in impairing the functional perfection of the digestive system. Experimental evidence of these effects is given, and attention directed to the applicability of the experimental results to the genesis of certain acute and chronic gastro-intestinal disorders. McCarrison asserts that faulty foods capable of causing similar effects in man to those produced experimentally in animals are widely made use of at the present day. In guarding the national health, McCarrison says physicians have three obvious duties: the first, to instruct the masses as to what to eat and why they eat it; the second, to apply the results of science to the production of natural foods in abundance and to their widespread and cheap distribution, rather than to the erection of institutions for the treatment of maladies due to their want; the third, and most important, ardently to pursue investigations and the acquirement of knowledge.

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Annual Banquet Buchanan County Medical Society.

The annual mile-post of the Buchanan County Medical Society was observed December 23 by an elaborate dinner at the Elks' Club. The retiring president, Dr. Harry Conrad, presided as toastmaster.

The orator of the occasion was Dr. C. Spencer Williamson of Chicago. The subject was Cardiac Decompensation. The speaker dwelt upon the use of digitalis in such cases in the most scientific manner, disposing of the older empric method of using the drug, and presented the therapy to a point of scientific exactitude. The evening was a very pleasant and profitable one.

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Are you a regular subscriber to the Medical Herald?

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ANOTHER MARTYR TO SCIENCE—HOWARD B. CROSS, M. D.

By HAL FOSTER, M. D., F. A. C. S.,
Kansas City, Mo.

Howard B. Cross, M. D., was born in Conway Springs, Kansas, July 31, 1889; was graduated from the public schools of Oklahoma in 1905 and from the Oklahoma state University 1915, University of Chicago, 1916. He also studied at the Marine Biological Laboratory. During 1918 he served in U. S. Army Neuro-Surgical Laboratory in Baltimore. He was appointed in the Department of Pathology and Bacteriology, John Hopkins University, and graduated from this university in 1920.

Dr. Cross became connected with the Rockefeller Institute for Medical Research April, 1921. November 23rd he was sent by this institution to Vera Cruz, Mexico, to assist in blotting out the Yellow fever in that vicinity. He became infected with this disease and died in Vera Cruz, Mexico, December 26, 1921.

President Obregon ordered special services at both Vera Cruz and Mexico City, at which the Mexican government and Medical profession paid high tribute. The Mexican government and Medical profession sent representatives to accompany the remains back to its final resting place in Enid, Okla. The funeral services were conducted by the Masonic lodge of Waukomis of which Dr. Cross was a member. Drs. Meyers and Harrison of Austin, Texas, paid Dr. Cross tributes, also Dr. Cerqueda of Lareda, Mexico.

Dr. S. Flexner, his teacher at the Rockefeller Institute of New York, said: "Dr. Cross gave his life in order that one of the great plagues of humanity might be overcome and destroyed. By his death the science of bacteriology has lost an able and devoted worker, and the world a brave and generous spirit."

Dr. Cross was a member of the Methodist church and Masonic fraternity.

He spent a week or ten days in Kansas City during his vacation last August. While here the writer took him out to St. Joseph Hospital and introduced him to Dr. Black who has charge of the laboratory there. He soon became well liked by the doctors and nurses. He worked daily in Dr. Black's laboratory while here.

He possessed all the traits of an ideal physician and made many friends while in Kansas City. He knew Dr. Gorgas personally and many of the fine qualities of that distinguished medical man were exemplified in the life of Dr. Cross. His Kansas City friends were indeed grieved to learn of his untimely death.

He was only 33 years of age and had he lived would have become a distinguished and useful physician of the great Rockefeller Institute in which he was a teacher.

Dr. J. A. French, one of St. Joseph's pioneer medical men, was laid to rest January 5 at Mt. Auburn cemetery. Rev. M. M. Good, who married Dr. and Mrs. French thirty-five years ago, made the last prayer at the cemetery among a large circle of men of the Buchanan County Medical Society. Dr. French had been active in city politics and in most of the earlier medical movements of St. Joseph. Many of his old associates and patrons were present at the final occasion. The immense bank of flowers attested to his popularity among his old friends.

Dr. Joseph MacDonald, Jr.—The many friends of Dr. MacDonald were shocked at the news of his sudden death, in New York City on January 7th, of apoplexy. Dr. MacDonald had been secretary of the American Medical Editors' Association for many years, and was elected president in 1919. He founded the American Journal of Surgery in 1905. A more extended notice will appear in our next issue.

Dr. Young Hance Bond, 75 years old, formerly dean of the St. Louis University Medical School, died at his home in St. Louis County, February 5, after a brief illness. He aided in establishing the first woman's hospital in St. Louis, and also founded the St. Louis Dental College.

Dr. H. C. Shuttee of West Plains, Mo., died in a hospital in Chicago, October 12, from cancer of the throat. Aged 63 years. Dr. Shuttee was one of the best known medical men in the state, serving as president of the Missouri Medical Association in 1914-15.

Dr. Work to Succeed Hays?—As the Herald goes to press a dispatch from Washington indicates that Dr. Hubert Work, retiring president of the A. M. A., and first assistant postmaster-general, will be appointed to succeed Will Hays as postmaster-general.

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

"Read not to contradict and confute, nor to believe and take for granted, nor to find talk and discourse, but to weigh and consider."—Francis Bacon.

INFANTILE PARALYSIS
(Poliomyelitis)

The essential feature of this disease is an inflammation in the anterior horns of the gray matter of the spinal cord. Not unlike inflammation elsewhere it is accompanied by edema and consequent pressure.

Often the use of certain muscles is impossible due to pressure on certain nerve fibers. If the edema subsides early in the course of the disease there will be a spontaneous recovery, but if stasis in the cord continues for a prolonged period of time the nerve fibers will degenerate and cause a permanent paralysis. The muscles deprived of nutrition soon atrophy and patient becomes a hopeless cripple.

The regeneration of nerve fibre takes place slowly during which time the muscles being inactive fades away into a mere band.

Treatment

The orthodox treatment of this disease is directed to the prevention of the deformity. The patient is placed at rest and splints or casts applied to maintain normal position, but nothing is done for the relief of the causative factor, pressure. The writer believes this method of treatment to be entirely wrong. It is well known that a normal muscle when placed at complete rest will soon atrophy from inactivity. The treatment by fixation simply causes atrophy of not only the affected but opposing normal muscles and results in complete loss of function. This form of expectant treatment seems irrational and should be displaced by measure directed to the restoration of physiological function.

In some cases, the intensity of the infectious process is so great as to preclude all hope of recovery, but this knowledge should not prevent the employment of measures which at least will give the patient a chance to recover.

All medical men agree that in this disease there is stasis in the circulation of the anterior horns of the cord and that the stasis is soon followed by inflammatory products which by pressure exerted causes dysfunction of the nerve fibers.

It is well known to those familiar with the physiological action of high-frequency currents that diathermy will relieve stasis and assist in the dissipation of inflammatory exudates. Therefore, it would appear that the early application of diathermy to the affected area of the cord to be a rational procedure. The earlier the institution of this treatment to prevent organized exudates the greater will be the hope of recovery.

Instead of muscle fixation and consequent atrophy, the function of the muscles should be maintained by early application of diathermy directly thereto. Voluntary effort to move the affected muscles should be obtained through the tact of the attending physician and nurse. Later on, if these measures seem to fail to prevent atrophy, the careful employment of the sinusoidal, Bristow coil or rythmic galvanic current will be efficient in keeping up muscular nutrition so that in the event of nerve regeneration the muscles will at once be capable of resumption of function.

Even the gravest cases are often improved by these currents, but to obtain their full effect the treatment must be persevered in for months and in some cases for years. Never despair of doing good in these cases.

SPRAINS

Sprained muscles and tendons about joints are very common in the practice of every physician, but the knowledge of how best to treat them is not so common.

The superficial stasis may be dissipated by radiant light from an ordinary electric light 50 watt lamp, followed by the unipolar application of the high-frequency current through a vacuum or non-vacuum electrode. For deeper effects diathermy should be employed. After the part has been thoroughly heated the infiltration may be dissipated by the blue pencil or spark discharge from a static machine or the proper application of the sinusoidal or Bristow coil current. The treatment should be employed twice a day for two days when all mild sprains will be relieved. The usual strappings are not necessary.

PRESERVED BREATH AND HEART BEAT

Perfection of a device which will record the sound of a human breath or a heart beat on a steel wire from which they can be accurately reproduced at any time was announced by the National Bureau of Standards, at Washington, November 7. The work was undertaken at the request of the Army Medical Service, which explained that permanent records of unusual conditions of heart and lungs were desired for clinical instruction. The device comprises use of an ordinary telephone transmitter and a stethoscope, it is explained, the current generated by the heat of the heart being "amplified and connected with a steel wire telegraphone which has the different sounds impressed upon its spool of wire in the form of varying degrees of magnetization.

Society Scintillations

SECTION HOTELS at the A. M. A.

The Local Committee of Arrangements for the annual session to be held in St. Louis, May 22-26, 1922, has designated the following headquarters for the Sections of the Scientific Assembly:

Section	Headquarters
Practice of Medicine	Hotel Statler
Surgery, General and Abdominal	Hotel Jefferson
Obstetrics, Gynecology and Abdominal Surgery	Hotel Claridge
Ophthalmology	Planters Hotel
Laryngology, Otology and Rhinology	Marquette Hotel
Disease of Children	American Hotel
Pharmacology and Therapeutics	American Annex
Pathology and Physiology	American Annex
Stomatology	Warwick Hotel
Nervous and Mental Diseases	Majestic Hotel
Dermatology and Syphilology	Majestic Hotel
Preventive Medicine and Public Health	Warwick Hotel
Urology	Maryland Hotel
Orthopedic Surgery	Hotel Jefferson
Gastro-Enterology and Proctology	Maryland Hotel

Dr. Louis H. Behrens is chairman of the Sub-committee on Hotels. He may be addressed at the office of the Local Committee of Arrangements, 3525 Pine Street, St. Louis.

The Sub-committee on Hotels requests those desiring hotel reservations to write directly to the hotel of their choice. It also suggests that this shall be done at an early date and that duplicate reservations shall not be made. If difficulty is experienced in securing the desired accommodations, the hotel committee on request will assist in every way posible. Arrangements have been made with the several hotels so that all communications will be referred to the Sub-committee on Hotels in case the hotel addressed is unable to provide the desired accommodations.

The American Radium Society will meet at the Hotel Planters, St. Louis, Mo., Monday and Tuesday, May 22 and 23, immediately preceding the meeting of the American Medical Association. All communications relative thereto should be addressed to George E. Pfahler, M. D., President, 1321 Spruce Street, Philadephia, Pa.

Meeting of National Health Council.—The annual meeting of the National Health Council was held, January 5, at the American Red Cross building, Washington, D. C.; Dr. Livington Farrand, president of Cornell University and former chairman of the central committee of the American Red Cross, was elected chairman of the council for the year 1922. Other officers elected were: Lee K. Frankel, Ph.D., vice-president; Dr. Samuel J. Crumbine, Topeka, Kan., recording secretary, and Dr. William F. Snow, New York City, treasurer. Dr. Donald B. Armstrong, Framingham, Mass., was appointed executive officer for 1922.

Medical Association of the Isthmian Canal Zone.—At the annual meeting of the association held at Ancon in December, 1921, under the presidency of Dr. W. Troy Earhart, the following officers were elected for the ensuing year: President, Dr. Cornelius D. Briscoe; vice-president, Dr. Nathan B. Kupfer, and secretary-treasurer, Dr. Leland S. Chapman, all of Ancon.

Public Health Meeting.—The Illinois state department of public health has completed arrangements for conducting a public health institute in Chicago, March 13-18, 1922. Complete programs for the institute have already been prepared and may be had upon request from the state department of public health at Springfield.

The Kansas City Eye, Ear, Nose and Throat Society held its December meeting in St. Joseph, with a large attendance and interesting clinics. Guests were present from Chicago, Omaha and Wichita.

The Western Electro-Therapeutic Association and Western School of Electro-therapy will hold its fourth annual convention in Kansas City, week of April 17-21. Full information may be obtained by addressing the secretary, Dr. Charles Wood Fassett, 115 East 31st Street, Kansas City, Mo.

The American College of Internal Medicine will hold its sixth annual session at the Mayo Foundation, Rochester, Minn., April 3 to 8. Dr. Frank Smithies, secretary, 1002 North Dearborn Street, Chicago.

The Bellevue School for Disabled Veterans has been opened in the plant formerly occupied by Bellevue College, adjoining Ft. Crook.

St. Joseph, we learn, is to have certified milk, the result of activities on the part of the Buchanan County Medical Society.

A PHYSIOTHERAPEUTIC WEEK IN KANSAS CITY

At the Little Theater, April 17, 18, 19, 20, 21, 1922

WESTERN SCHOOL OF ELECTROTHERAPY

Fourth Session, April 17, 18, 19, 1922

INSTRUCTORS

Dr. B. B. Grover, Colorado Springs; Dr. Frederick H. Morse, Boston; Dr. T. Howard Plank, Chicago; Dr. A. J. Pacini, Washington.

Classes are now being formed. Number limited to those who register in advance.

Western Electrotherapeutic Association, Fourth Annual Meeting, April 20, 21

Send for programs and registration blank. Chas. Wood Fassett, M.D., Secretary, Kansas City, Mo.

PRELIMINARY ANNOUNCEMENT

THE WESTERN SCHOOL OF ELECTROTHERAPY will hold its Fourth Annual Session at the Little Theater, Kansas City, April 17, 18, 19, 1922. Each previous session of the school has been an unqualified success in the dissemination of information in the use of physical modalities in medicine, and this year promises to be better than ever.

Dr. Grover will lecture on the fundamentals of electricity each morning at 10 o'clock. Every day from 2 to 5 o'clock will be devoted to clinical demonstrations. Diseases and conditions amenable to physiotherapy will be briefly described in which the physiological indications for the use of the different modalities and how and when to apply them will be fully explained. Demonstrations will be made on actual cases in so far as clinical material is available. In absence of material each step of treatment technic will be fully explained with demonstration of apparatus.

During the Clinical Sessions time will be given for brief discussion of each demonstration.

Major Chris M. Sampson, through the courtesy of the United States Public Health Service, has kindly consented to be present during the week and take part in the discussions and demonstrations. He will present a very comprehensive "movie" film on physiotherapeutic technic as employed in the U. S. Public Health Service Hospital at Fox Hills, Staten Island, New York, and will lecture on the same. He will also explain a new technic of treatment of such conditions as locomotor ataxia, hay fever, pyorrhea, etc.

Dr. A. J. Pacini, formerly in charge of the X-ray Department of the United States Public Health Service, will be present during the week and lecture on the uses of actinic rays in medicine. He will hold clinics for the demonstration of this important modality in many diseased conditions.

Dr. Frederick H. Morse, ex-president of the American Electrotherapeutic Association and well known authority in direct and sinusoidal currents, will be with us again this year and give clinical demonstrations of these conditions.

Dr. T. Howard Plank, one of the prominent workers in the American Electrotherapeutic Association and a recognized authority on actinic rays, will be with us again this year and give clinical demonstrations of high-frequency currents in surgery.

The Exhibit Hall will contain the latest equipment and will be well worth a trip to Kansas City.

Program will be ready about March 1.

For program and information, address Dr. Chas. Wood Fassett, 115 East Thirty-first St., Kansas City, Mo.

COMMITTEES FOR 1922

President Curran Pope has appointed the following committees for the annual meeting in Kansas City, April 20-21:

ON ARRANGEMENT: Charles Wood Fassett, Chairman. S. Grover Burnett, Charles J. Cahill, L. A. Marty.

ON DIRECT AND CONTINUOUS CURRENTS: Frederick H. Morse, Chairman. C. F. Harrar, Burton B. Grover.

ON PHOTOTHERAPY: Lynne B. Greene, Chairman. T. Howard Plank, Frank C. Fuller.

ON HIGH FREQUENCY CURRENTS: Omar T. Cruikshank, Chairman. H. W. Nye, L. A. Marty.

ON ROENTGENOLOGY: H. H. Bowing, Chairman. E. H. Skinner, William L. Ross.

ON STATIC CURRENTS: Jefferson D. Gibson, Chairman. S. Grover Burnett, Wm. Benham Snow.

ON VIBRATION AND PHYSIOTHERAPY: E. W. Hirsch, Chairman. W. P. Patterson, T. W. Raison.

ON HYDROTHERAPY: Charles J. Cahill, Chairman.

ON RESEARCH: A. D. Willmoth, Chairman. Clyde Donaldson, George Knappenberger.

ON RADIUM: D. T. Quigley, Chairman. Frank H. Blackmarr, Carl H. Ballard.

Poems the Doctor Should Know

LOYALTY

Although my fireside holds my thought, wherever I may roam,
I do not love my town the less because I love my home.

And when I view the broader skies where storm clouds often frown,
I do not love my country less because I love my town.

Or when my fellow-men afar face hungering and fear,
I love the world no less because I hold my country dear.

He who denies to one of these the reverence that is due
Has not the soul and sense sincere to love the other two.

—Philander Johnson in the Washington Star.

PROCRASTINATION

It may be I will live for years
Before my earthly race is run,
And win life's plaudits or its jeers,
As multitudes have always done;
It may be I will have a chance
To still make good in future day,
Or that some lucky circumstance
Will bring unearned success my way.
But if I'd surely reach full power,
And make my life completely blest,
I must resolve each fleeting hour
To give the world my very best;
For, though I plan to sometimes do
The many things that should be done,
The chance may not again accrue—
I might not see tomorrow's sun.

—LeRoy Huron Kelsey

MME. MARIE CURIE IS HONORED—SCIENTIST IS FIRST WOMAN MEMBER OF ANY FRENCH ACADEMY

Paris, Feb. 7.—Madame Marie Curie, scientist, was elected today a member of the Academy of Medicine. It is the first time a woman ever has been elected a member of any French academy.

The academy's committee had presented six names as candidates to succeed the late Edmund Perrier. The five men nominated withdrew when they found Madame Curie's name on the list. She obtained sixty-four votes against fifteen blanks.

Pulmonary Tuberculosis; Its Diagnosis and Treatment—This is the title of a very interesting booklet issued by the Fellows Company, New York. The booklet book consists of a compilation from a number of authors, and covering the subject in a very complete yet comprehensive form, including the recognized forms of treatment of today. It is well worth reading. If you have not received a copy, write to the Fellows Medical Manufacturing Company, 26 Christopher Street, New York City.

The Willows Calendar—The most artistic calendar of the year comes from The Willows Maternity Hospital, Kansas City. It is printed in colors, depicting the different phases of childhood; its usefulness being greatly enhanced by its beauty.

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Home Office and Laboratories, St. Paul, Minn.

Medical Melange

YOUR INCOME TAX

The following "pertinent points" to be observed making up your report appeared in the "Medical ocket Quarterly:"

If you own your own house and have your office one room of that house, you may not claim a deiction for office rent. But if you pay rent to anher person, for the use of office space, you are peritted to deduct the amount expended for the rent that office.

If married, you may first record a deduction this ar of $2,500, if your income is $5,000 or less in place $2,000 last year from your gross income. If single, ou deduct $1,000. For each child or dependent unr the age of eighteen you are allowed a further eduction of $400, instead of $200, as last year.

Exemption may be claimed for the cost, repair and pkeep of your automobile or other vehicle which is sed mainly in the conduct of business. The salary f the chauffeur, if most of his time is spent in drivig to professional calls, may also be deducted. mounts spent for the hire of taxicabs, and also reet car fares, on business calls, may be taken off.

Exemption may be claimed for the salary of a urse, laboratory assistant, stenographer, or clerical orker in the office, whose work is connected with ie doctor's professional duties. Deduction may also e made for the salary of a maid or other person who pends the greater part of his or her time in opening ie door or answering the office telephone.

Doctors may also take off an item for medicines used in the office in the treatment of patients, also for medicine given out to patients who are too poor to pay for it. Bandaging, laboratory materials, and all other supplies necessary to the running of the physician's office are permitted to be deducted.

Telephone bills in their entirety may be deducted, because it is understood that the telephone in a doctor's office, even when that office is in his home, is almost entirely used for professional purposes.

Exemption is permitted for the correct proportion of expenditure made for light, heat and water. Depreciation of 10 per cent of the original cost each year is allowed upon office furniture, it being considered that furniture should last about ten years.

Most doctors have a medical library more or less extensive. In the courts it has been decided that after ten years a medical book is out of date and therefore worthless. For this reason the doctor is allowed a depreciation item of ten per cent each year on his medical library.

On surgical instruments he may charge off on an instrument with a fair average life of five years, one-fifth of its original cost each year.

Any taxes which a doctor may be required to pay upon materials required for his work may be deducted, and all licenses which he is by the nature of his business required to take out may be taken off of his gross income reported. This includes his license to prescribe alcohol, narcotic license, and so forth.

Also, doctors may deduct dues paid to professional associations to which, in the interest of his business, he belongs, and exemption is also allowed for subscriptions to all medical newspapers and journals. Also deduct actual expenses of attending medical meetings.

The Management of an Infant's Diet

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If his books are kept according to the "Cash Receipts and Disbursements" system, he may not charge off any unpaid debts, because as explained in the tax manual, "if his books are kept according to this system, he is only reporting as gross income those accounts which have proven to be good, and therefore bad accounts cannot be deducted because they have already been excluded."

If the books be kept on an "Accrual" basis (that is, on the basis of expenses actually incurred and payable even though not yet paid, or income earned although not yet collected), it is permitted that the doctor may charge on his income tax blanks all debts which are definitely ascertained to be worthless during the year past.

In the same way, the doctor is permitted to claim deductions for all other expenses within the scope of his profession, and the amount of his tax is determined on the net income which remains after all of these items have been deducted.

The Cleanly and Convenient Tablet.—Although Gude's Pepto-Mangan, the standard hematinic and tonic, has been prominently before the medical profession for 30 years, it is but recently that this deservedly popular product has been marketed in tablet form. After a long period of experimentation, the manufacturers finally succeeded in preparing a tablet which contains in condensed and therapeutically active form, the medicinal ingredients of Gude's Pepto-Mangan, in stable and inalterable condition. The practitioner is now able to order or prescribe the remedy for teachers, travelers, business men and women, and ambulant patients generally, without subjecting them to the inconvenience of carrying a liquid from place to place. Two tablets are equivalent to one tablespoonful Gude's Pepto-Mangan liquid. The manufacturers, M. J. Breitenbach Co., are prepared forward samples and literature to any physician siring same.

Iodine Accepted by the Medical Profession.—Iod now is accepted by the Medical Profession as most dependable germicide. It has been said (a correctly) that "Iodine will destroy any germ it can only get at it." In order to "get at it" the iod must be of such form that it will give the germici action of Free Iodine. The Iodine must be Solubl Water for, otherwise, it cannot be absorbed by watery elements of the tissues and it must be so co bined that it will be carried to any desired point application. Further, this combination must be s that it will in no way retard the therapeutic actior the iodine nor disturb metabolism. The ideal p paration to use when iodine is indicated is Solu Iodine (Miller's) formerly Iodum—Miller.

PAIN

Pain, aside from the disorders of which it i manifestation, is too frequently regarded as a sy tom of secondary importance, which will sub with the removal of the cause, often remote. as long as it lasts, it reacts upon the entire syst to every element of which it is inimical. By venting rest and banishing sleep it delays bodily cuperation, the first essential to recovery.

Tongaline subdues the aches, pains and all the quietudes of the body, due to excited nerve minals; while its curative agents are removing cause or causes, and hence in all conditions in w pain is a prime symptom, Tongaline is indicated.

GOOD THINGS TO COME

Following is a partial list of original papers to pear in the Medical Herald:

"Sarcoma of the Testicle with Metastases to Abdominal Lymphatics, Treated with Radium X-ray," Dr. H. H. Bowing, Rochester.

"Intestinal Stasis and Induction of Normal Musc Movement," Dr. Frederick H. Morse, Boston.

"Recent Developments in X-Ray and Radium T apy," Dr. A. F. Tyler, Omaha.

"Metabolism," by Byron S. Price, M.D.

"How to Arrest the Physical Degeneracy of Race," Dr. W. O. Henry, Los Angeles, Cal.

And all the papers read by Missouri Valley me the October meeting in Kansas City.

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THE IMPORTANCE OF MOUTH CLEANLINESS

The mouth offers an ideal dwelling place for germs; it is of just the right temperature and moisture, and unless regularly cleansed, there are always enough decomposing food particles in the deep tissue folds and around the teeth, to provide a favorable medium for the growth of all sorts of pathogenic bacteria. Oral cleanliness has become, therefore, an essential detail in the prevention of many diseases.

For cleansing the mouth, there is no antiseptic so serviceable in every way as Dioxogen. Owing its germicidal qualities to pure oxygen, it penetrates to the deepest recesses of the mouth, where it softens and detaches all accumulated material, and cleanses and purifies everything with which it comes in contact.

Dioxogen, in consequence, can be used as freely as necessary, or desired, in even the youngest patients, with absolute certainty not only that it will keep the mouth and teeth in a clean and wholesome condition, but that it will always do its work in a safe, pleasant and agreeable manner.

Value of Suppositories—Examination of the prescription files of almost any up-to-date druggist will show a number of prescriptions written by practical physicians for suppositories of one kind or another. While the suppository is to be regarded largely as a palliative agent, its use cannot under ordinary conditions be entirely dispensed with, and it fills a distinct need. There are many varieties of suppositories and there are numerous combinations all of which are more or less efficient. Among these Micajah's Suppositories have come to occupy a high place. They contain no narcotic or habit-forming drugs; they have the desired degree of astringency, together with marked styptic action and effect. Their soothing and healing properties are pronounced. Ethically introduced to the medical profession a number of years ago, the use of Micajah's Suppositories has steadily grown until at the present time they are to be found in almost every drug store. The physician who has not used Micajah's Suppositories will find an opportunity to satisfy himself as to their practical value by writing for sample and literature to the makers, Micajah & Company, Warren, Pa.

RESEARCH ESTABLISHES VALUE OF PETROLATUM TO OVERCOME STASIS

The reaches of men like Sir William Arbuthnot Lane of Guy's Hospital, London; Godfrey Taunton, of Paisley Infirmary and Fever Hospital, Birmingham; J. H. Kellogg, of Battle Creek, and others, have shown increasingly that value of liquid petrolatum for the elimination of alimentary toxins. These poisons which are being etiological factors in some of the gravest diseases, are best combated by such a liquid petrolatum as Nujol. Nujol, it is found, absorbs and carries these poisons in solution and so eliminates them from the body. It also exercises a lubricating and softening effect that hastens evacuation and increases the number of daily stools. The company that manufactures Nujol possesses an organization and equipment designed for the manufacture of an unequaled product of this nature. Its laboratories are models of cleanliness, airiness and sanitation. Expert supervision guards every step of production. Girls are clad in spotless white. The home of Nujol has been aptly termed "the last word in sanitary science."

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The Kansas City Diagnostic and Therapeutic Clinic has been established with the object of furnishing under one roof as complete an Institution as medical science of today demands. It is equipped with the most modern apparatus for diagnosis and treatment and manned by a competent staff of specialists in their respective departments.

THE DEPARTMENT OF PHYSICAL DIAGNOSIS is under the direct supervision of Dr. I. J. Wolf, Professor of Medicine in the University of Kansas, formerly Professor of Medicine in the University Medical College.

CLINICAL LABORATORY is fully and adequately equipped so that all forms of examination that may be demanded, including urinalysis, gastric analysis, blood, blood chemistry, C 02 Alveolar tension, Wasserman Test, and the various bacteriological examinations can be promptly and accurately made. Dr. S. H. Richman, former pathologist of the Cook County Institutions, is in charge of this department.

We invite the co-operation of the profession and wish to assure it the fullest assistance in whatever capacity we may be of service. All cases referred to this clinic for examination are returned to their respective physicians with a full report of the findings and such recommendations as seem pertinent.

The laboratories endeavor to give accurate and prompt service whether it be in a simple urinalysis, a Wasserman, Metabolism rates Electro-cardiography.

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This clinic has established a physio-therapeutic department, fully equipped, and offers to the profession such measures as may be found necessary to increase elimination, improve local and general circulation, produce hyperemia, sedation, stimulation and general tonic effects.

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Notes By The Wayside

A NEW MERCURIAL

The Old World gave us Salvarsan. The New World has given us Mercurosal. Salvarsan is placed directly into the vein; Mercurosal may be also. Never until now has the medical profession had a mercurial preparation that could be administered intravenously, by the mere introduction of the needle into the vein and the customary technique, without the practical certainty of obliterating the vein. In Mercurosal, the new P. D. & Co. mercurial, the molecular form of the mercury compound is such that it has no irritating effect upon the delicate tissues of the venous walls; at the same time, characteristic mercurial effects upon the spirochetes are secured by the intravenous administration of this compound. One physician reports having made twenty-seven consecutive injections into the vein in a space not more than half an inch in extent, without any ill effect upon the blood-vessel. The chemical synthesis of Mercurosal must be regarded as a triumph over difficulties as great as those which had to be overcome in the development of Salvarsan; and its accomplishment is what the profession has long been looking for, notwithstanding the acknowledged value of the arsenical compound. Both Salvarsan and Mercurosal are needed. The manufacturers, Parke, Davis & Co., have a booklet on the subject which they offer to physicians.

SMALLPOX VACCINE

Certain sections of the country are being penalized for neglect of vaccination against smallpox. In seven southern states reported by the United States Public Health Service, the rate per 100,000 population rose from 0.46 in 1915 to 0.92 in 1920; in six central states from 0.79 in 1915 to 1.74 in 1920; and in three Pacific states from 0.24 to 2.38 in the same period. In some communities the disease has manifested itself in the malignant form, in one noteworthy instance more than one hundred lives being sacrificed, a mortality of more than 30 per cent and hundreds more disfigured by its ravages. In prevaccination days, the dread of the disease and its disastrous after effects caused people to resort to preventive inoculation which was itself a source of considerable danger, but the consequences of which were risked because it was the lesser of two evils. The people of the present generation have come to regard smallpox as a very mild disease from which there is practically no need of vaccination for their children or revaccination for themselves. The lesson from these recent severe epidemics is a much needed one, and every effort should be made by public health officials and physicians to see to it that it is a much heeded one. In the study of 34,000 cases of smallpox reported for 1920 and 1921, more than two-thirds of the entire number afflicted had never been successfully vaccinated. About one-twentieth of them had been vaccinated more than seven years before the attack, while one-fiftieth had been vaccinated within that time. Of the remainder, no satisfactory vaccination was obtainable. The control of smallpox depends upon diagnosis and vaccination. Vaccination of contacts is much more important in checking the disease than quarantine and disinfection. Vaccination depends for its success and the final efficacy of results in controlling smallpox epidemics upon the use of a potent vaccine virus. In numerous epidemic centers, the quality of service rendered by Eli Lilly & Company, and the dependableness of Smallpox Vaccine Virus, Lilly, have been subjects of favorable comment. The purity of this product makes it easy for the physician to demonstrate the harmlessness of vaccination and the maximum percentage of "takes" in primary vaccinations following its use is evidence of its high potency.

A WAR COMPENSATION

Among the compensations of the war, not the last has been the impetus given to American industries under the lash of necessity. Early in 1915 the shortage of medicinal chemicals in this country became a serious menace to public health. The United States Government, recognizing this fact, made possible by proper legislation the licensing of American firms through the Federal Trade Commission to manufacture and market the most important chemicals controlled by enemy-owned patents—chemicals which had never before been produced in this country. Among the American firms which proved equal to the task of manufacturing the synthetic medicinal chemicals, identical with those previously secured by importation, was The Abbott Laboratories of Chicago. One of the most important products, so licensed, was Barbital, introduced and previously known as Veronal. The name Barbital was given it by the Federal Trade Commission. The Abbott Laboratories immediatey began the manufacture of Barbital, under Government license, and this product was favorably passed by the Council on Pharmacy and Chemistry of the American Medical Association. Announcement was made in The Journal of the American Medical Association (Feb. 16, 1918, page 459) of its acceptance for inclusion in "New and Non-Official Remedies." For war purposes, the United States Government requisitioned every ounce of Barbital which The Abbott Laboratories produced. Every facility was directed to the rapid filling of these orders during the war period, since which, accumulated orders from physicians and hospitals have been filled as rapidly as possible; and now Barbital, Abbott, is ready for general distribution. Its official recognition and its general use by the United States Army and Navy are a guarantee of its purity and efficiency.

Poetic Reprints—Do not mutilate your copy of The Herald if some bit of verse happens to take your fancy. We make reprints of all the poems appearing in our magazine. Should you desire one send in your name.

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Continuing the Medical Fortnightly and Laboratory News

The Medical Herald
and Electro-Therapist
Incorporating
The Kansas City Medical Index-Lancet
An Independent Monthly Magazine

Vol. XLI MARCH, 1922 No. 3

Original Contributions
[EXCLUSIVELY FOR THE MEDICAL HERALD.]

A SERIOUS MENACE AND A WAY OUT

EDW. H. OCHSNER, B.S., M.D., F.A.C.S.
Attending Surgeon, Augustana Hospital
Chicago, Illinois

DURING the 1921 session of the Oklahoma legislature a separate board was created for the examination and licensure of chiropractors and another board for the osteopaths. The osteopathic bill virtually provides that those who receive a license from their board may practice anything which they study in their colleges. Thus if they have had, say, four lectures on obstetrics they possess the same legal right and sanction an any regular practitioner of medicine to practice this specialty.

In Missouri there is also a separate board for the osteopaths. Heretofore it was necessary for an application to be a graduate from a reputable medical school—the question of the reputability of the school being decided by the state examining board. At the last session of the legislature the word "reputable" was stricken from the medical practice act and if an applicant is refused a license he may appeal the case and the question at issue be decided by a jury of laymen.

Texas also has a separate board for the osteopaths. What this will eventually lead to may be determined from what has happened in the past. Some twenty years age Texas had three boards—one for the regulars, one for the homeopaths and one for the eclectics. If a man failed the regular examination the took the homeopathic examination, and if he failed in this he took the eclectic examination. And now he has one more chance, and the man who cannot get through on four trials must indeed be hopeless.

The New York legislature passed the chiropractor bill last winter, but the governor vetoed it. Most vicious bills were introduced in the last session of the Illinois legislature, but fortunately they all died in committee. If laws such as those now in force in Oklahoma and Missouri become general, the economic disadvantage to the man who wants to study medicine will become almost insurmountable. This must be evident when we realize that such a prospective medical man, after having finished his high school course, has to spend from six to ten years or even longer in completing his medical education and then he must compete on an equal footing, so far at least as the law is concerned, with men who need have no preliminary education whatsoever, and who spend only a few months in a spurious education. The disadvantage to the public is even greater, for how can the average layman differentiate between the real physician and the imposter when the state issues a license and gives the same legal approval to both? To him who is not blind, the serious menace to both the medical profession and the public must be evident.

When a patient consults a physician, the first question the physician asks himself is, "What is the matter with the patient?" When this is determined, the next question he asks himself is, "What can I do to relieve the trouble?" Let us apply the same process to medical problems. What is the matter with the adjustment of medicine and medical laws to the public needs and what can we do to relieve the difficulty? Homeopathy was a protest against empiricism in medicine and against horse medicine in horse doses for human beings. Homeopathy was supposed to be based on a rational principle, namely, "similis, similibus, curantur." As a matter of fact, it was not a rational system of medicine and hence could not survive. When regular physicians substituted elegant pharmaceutical preparations in suitable doses for nauseous drugs in excessive

Reprinted from the Illinois Medical Journal, February, 1922.

doses, and employed rational medicine based on a knowledge of pathology and bacteriology, and when careful scientific observation and investigation supplanted empiricism and pseudo-rational theories, homeopathy had fulfilled its purpose and died a natural, unmourned death.

As stated in the introduction, the new menace is osteopathy, chiropractice, naropathy, Christian Science and other visionary systems that are springing up constantly. However, let us not rage against these, for all of these pathists are in part at least, but a protest against our neglect of a certain group of minor, though very distressing, afflictions from which the public demands relief.

During the 1915 session of the Illinois legislature, I had occasion to spend a considerable amount of time at Springfield as president of the then Illinois State Charities Commission in the interests of a bill for the Legal Commitment of the Feeble Minded. During the same legislative session the osteopaths were making a strenuous fight for recognition. Quite a number of the legislators, on their own initiative, consulted me about the osteopathic bill and I remembered one very capable and conscientious representative who made the argument, illustrated by a number of cases, that there was a certain class of diseases to which the regular medical profession had not, and was not, paying sufficient attention. This argument made a deep impression upon me, and I saw the justice of his contention.

We can only defeat the menace by meeting it squarely and treating every ailment better than any of these insufficiently trained pseudo-scientific intruders can. And I propose now to illustrate one phase of this problem and how to meet it. I have chosen a disease of which I have made an intensive study for twenty-seven years, and which, so far as I know, has never been thoroughly described. I have chosen to call it "Chronic Fatigue Intoxication" of which I will very briefly consider only the symptomatology.

Ordinarily the body rapidly recuperates from moderately excessive fatigue, but if this excessive exertion is persisted in day after day for a considerable period of time and particularly if the work is done at an abnormally high rate of speed, the point ultimately comes when the system becomes so supersaturated with fatigue material that it is no longer able to rid itself, unaided, of this excessive accumulation.

The disease under consideration may conveniently be divided into two stages, namely, the acute, early, active or labile stage. and the late, fully developed, chronic or stabile stage. These two stages, while relatively distinct, nevertheless, gradually merge into each other.

One of the most characteristic symptoms of this condition is the fact that reaction is always out of proportion to the stimulus acting, and this applies with equal force to physical stimuli and physical reactions, and to emotional stimuli and emotional reactions. In the acute, labile stage, the resultant reaction is out of all proportion in its intensity, while in the chronic stage, the reaction is disproportionately sluggish and feeble.

Another very noticeable peculiarity is that as it progresses, the area of normalcy in any one field may become very much contracted. Thus, for instance, the reaction to heat or cold may be greatly accentuated, and such a person may feel relatively comfortable at a temperature varying between 68 and 72 degrees, F.; may feel oppressed and begin to perspire profusely on the slightest exertion if the temperature rises to 80 degrees, F., and suffer from chilliness if it drops to 60 degrees, F. Similar phenomena may occur with any form of stimulation to which the organism may be subjected.

Some of the first symptoms to appear and the last to leave, if the patient is put on proper treatment, are dermographis, urticaria, angioneurotic oedema and pruritis. Herpes labialis is likely to occur in these cases when there has been a period of extra stress. In some of these patients it occurs every time that the patient has over-taxed his strength, or has been exposed to bad air for a number of hours, or has lost considerable sleep.

The pruritis associated with this affection may be localized or general. If the former, it is more likely to affect those portions of the body where the mucous membranes and the skin meet, as the margins of the eye-lids, nose, mouth, anus and genitalia, and the palms of the hand and the soles of the feet. In either case it is apt to be intractible and very difficult to control.

Seborrhea sicca and Seborrhea oleosa with pre-mature baldness and premature grayness are also quite common. The skin particularly on the exposed portions of the body such as the hands and face may be overstretched, thin, shiny, dry, almost lifeless in appearance and ashen gray in color, or blue, moist, cold and clammy, or loose and flabby; or again red, florid, hard, dry and swollen; or again the complexion may be alternately livid and florid or ashen. If the skin is very dry and lifeless, fissures of various depths and varying degrees of severity may develop. These fissures may occur anywhere, but are most likely to occur on the hands and feet, about the nares, mouth, axillae, groins, bends of elbows and knees, genitalia and anus.

On the covered portions of the body the skin

is often dry, thickened, roughened and pigmented. If the pigmentation affects the exposed portions of the body, particularly the face, it cannot be differentiated from the condition described as Closma.

The subcutaneous areolar tissue is usually the seat of a diffuse oedema which infiltrates these structures, separates the skin from the deep fascia and in that way obliterates the normal contour and creases of the body. If this involves the tissues of the face, particularly if associated with thickening of the skin, it often gives the intelligent person a very unintelligent look simulating, sometimes, the expression of countenance so frequently seen in those habitually indulging in alcoholic liquor to excess; makes the hands look puffy, pudgy and swollen so that the play of the extensor tendons cannot be seen and the normal depressions are obliterated. The same changes, though less noticeable, are found in other portions of the body.

Oftentimes there are deposits in the subcutaneous areolar tissues and intermuscular septa varying in size from a split pea to a black walnut, rather firm, always sensitive, but during acute exacerbation very painful and excruciatingly tender.

The muscular system is one of the first to be involved and one of the last to get well. Hyper-irritability and spasms of both the voluntary and involuntary muscles are the chief manifestations. The contractions may be either simply fibrillary, or tonic spasms of the whole muscle or muscle group. The fibrillary contractions can often be observed in any of the voluntary muscles while making a general physical examination and are often also noticeable during ordinary conversation with such a patient in the orbicularis palpebrarum and in the small superficial muscles about the corners of the mouth. In the more severe cases the tonic contracture of the muscle or muscle groups is intermittent and brought out only when the muscle is stimulated by mechanical irritation such as handling or gentle tapping, while in the still more severe cases the muscles are often in permanent tonic spasm not even relaxing completely during sleep. In these severe cases the muscles often feel as hard as a board and there is very little difference in their consistency whether at apparent rest or when a voluntary attempt is made at further contraction. In other words, they are always more tense than under normal conditions.

If the tonic spasm involves the facial muscles very characteristic expressions of the face develop. Thus, if the risorius muscles are principally involved the patient often has a chronic grin though he may not feel a particle like laughing. If the corrugator supercilli are principally involved he bears a constant frown and looks as though he were suffering from a chronic grouch. If the depressor anguli oris are involved the corners of the mouth are pulled down and he has the expression commonly known as "down in the mouth." If both the last mentioned groups of muscles are simultaneously involved the patient usually looks as though he had just buried his last friend.

The muscles most frequently affected are the pectoralis major, trapezius, deltoids, spinal complex, muscles of the fore-arm, and calves of the leg. The latter two often become so hard that is it quite impossible to indent them.

The spasm in the early stages may make the muscles appear as though they were actually hypertrophied, but on more careful study it will be found that this is really only a pseudo-hypertrophy. As the disease progresses the pseudo- hypertrophy is often replaced by marked muscular atrophy, at first involving only single muscles or groups of muscles and later all the skeletal muscles. This muscle spasm produces many secondary symptoms. After a period of rest the patient finds it difficult to get started. Then after a short period of activity he catches his second wind, as it were, limbers up somewhat, but his muscles remain unsteady, not completely under the control of his will, somewhat shaky and without the ability for fine co-ordination.

With almost all cases, even in the early ones and always in the late ones, there is some joint involvement which is very characteristic. This process may involve only one or two joints, or it may involve every movable joint of the body, is insidious and gradual in its development, sometimes remaining stationary for months only to flare up again, or it may take years before it is fully developed.

The joints become nodular, swollen, painful, tender and progressively stiffer. On the occasions of acute exacerbation they puff up more, feel hot to the touch and become reddened. The stiffening is not due to a true ankylosis for, except in the terminal cases, by gentle, slow, passive motion extension and flexion can be accomplished almost or quite to the normal extent. The involvements seem to be confined entirely to the periarticular structures, namely, tendons, ligaments and capsules.

The tonic spasm of the skeletal muscles associated with these joint involvements results in very decided limitation in motion which in the milder cases gives the patient a very characteristic walk, later puts a heavy burden on the will in willing to move the joints and in the severest cases the condition becomes so pronounced that voluntary motion becomes im-

possible and passive motion, because of long, continued non-use, very difficult and very painful and towards the end quite impossible.

In many of these cases the gastro-intestinal symptoms are the most distressing and are often the ones which bring the patient to the physician. In severe cases the lips are red, dry, parched, cracked and covered with herpes. The tongue is usually red and beefy at the borders, sometimes fissured, and even in the mildest cases, the dorsum is always covered with a thin white fur which in severe cases may become a thick velvety coat which has the peculiarity that it practically always retains its white color no matter how thick it may be. This, as well as the rarity of pyorrhea, I am inclined to ascribe to the hyper-acid condition of the mouth and and stomach which is so usual in this condition and in some cases so pronounced as actually to cause serration and eburnation of the teeth. In the early cases the gums are often swollen, spongy and bleeding, while in the later stages they are often receding. Pyorrhea is surprisingly rare. The tongue and mucous membrane of the cheeks are often the seat of recurrent attacks of canker sores.

The muscle spasms already referred to may involve the constrictors of the pharynx, resulting in spasm of the gullet, sometimes making swallowing very difficult, or it may involve the circular muscles of the lower end of the oesophagus and result in a true cardiospasm. In the stomach proper the disease may manifest itself by marked hyperacidity, and again in anacidity with all the symptoms accompanying either of these conditions. Regurgitation of sour water, eructations of gas sometimes in enormous quantities and with much noise, burning pain in the stomach and oesophagus, distention of the stomach with gas, nausea, and often very severe gagging and retching, though rarely vomiting, may be prominent symptoms. There may also be a very pronounced pyloro-spasm.

In quite a number of these patients we find marked gaseous distention of the intestines with much flatulence and the repeated expulsion of foul-smelling flatus, alternate looseness and constipation of the bowels. In the later stages of the disease we often find severe constipation, sometimes so severe as to cause a suspicion of organic obstruction, stools dry, hard, scyballous, requiring the daily ingestion of strong cathartics or the daily use of enemata. As a result of these digestive disturbances, the patient often becomes seriously undernourished.

The genito-urinary symptoms are not very numerous, but when present are quite characteristic and sometimes very distressing. In nearly all cases, and particularly the severe ones, urine is very acid and sometimes causes considerable burning and tenesmus when it is being voided. As a general rule, the urinations are increased in frequency and nocturia even up to a dozen times a night, is one of the most annoying symptoms. This nocturia is often present in spite of the fact that the urine, with the exception of hyperacidity, may be perfectly normal, both chemically and microscopically.

The respiratory tract is unusually sensitive to irritation. A minute quantity of irritating substance in the air which would not be sufficient to produce any appreciable affect in the normal individual may produce extreme irritation in the respiratory mucous membrane of a person suffering from this affection, which in one case may produce extreme dryness of the nose and throat or in another case a profuseness of secretion such as is observed in Hay Fever or even in Bronchorrhea. Many of these patients are constantly complaining about a cold in the nose and head, and on examination the Synderian Membranes, as well as the remaining lining of the nose and throat, is found to be markedly swollen and congested and local treatment does not give permanent relief until the general systematic disorder is cured. Some of these patients have frequent severe sneezing fits followed by profuse watery secretion during seasons of the year when Hay Fever is out of the question, and again they complain of a severe burning dryness of the nose and throat and even of the larynx. Some of them are troubled with a constant short hacking cough and have great difficulty in getting up a small amount of thick sticky mucous, which continues to recur with a constant recurrence of the cough. As a result of this some are chronically hoarse without the laryngoscopic examination showing any pathological condition of the true vocal chords, again others in talking find their voices involuntarily jumping into high falsetto which they find difficult, and even impossible to control. Some of these patients have severe attacks of asthma.

In the milder cases the circulatory system does not show any characteristic changes, while in the severer cases the variation from the normal is usually quite pronounced. In these latter cases the heart rate at rest is usually a little higher that that found in the average ambulatory patient. In addition, after a very short period of strenuous exercise the heart rate will increase more rapidly that it does normally and the rapidity of its increase will depend largely upon the severity of the condition. In the still more severe cases there is often a missing of the pulse beat of from every fifth to every tenth beat. This peculiarity can be observed in these patients particularly after a few days of more

than average strenuous work; it will disappear with prolonged rest or after complete recovery. In several very severe cases I have, in addition, noted typical attacks of angina pectoris. In one such case in particular, the attack of angina pectoris always came on after a day or two of strenuous exertions.

The blood pressure is sometimes slightly below normal, more usually normal and again sometimes increased.

The blood count averages about as does the blood count in the average patient consulting a physician in his office, with the following two exceptions: First, that some of the more severe cases have a rather low leukocyte count, and, second, nearly all of the very severe cases have a relatively high eosinophile count and often a true oesinophilia. Thus one of my severest cases had a leukocyte count of 3,600 per c. c. with fifteen per cent of eosinophiles, or 540 eosinophiles to the c. c. This patient had not only a low leukocyte count, but in addition a high percentage of eosinophiles with a relatively large number of eosinophiles per c. c., namely, a true eosinophilia. Another extremely severe case had 1,328 eosinophiles to the c. c., while one year later, when she had practically recovered, no eosinophiles were found in 100 cells counted. One of my severe cases had an eosinophilia varying from five to twelve per cent during a period of sixteen months. The lowest number of eosinophile cells found during this period per c. c. was 410, while the highest was 1,178, while after her recovery her eosinophiles dropped to one per cent. or 60 per c. c.

The range of normal reaction to stimuli of all kinds is greatly reduced. Thus a stimulus that would produce a normal reaction in the average person may have a greatly exaggerated effect or a relatively slight effect and in extreme cases no effect at all, depending upon the severity of the disease. The first result is likely to occur in the earlier stages of the disease, the second during the moderately advanced stages of the disease, and the third during the severe terminal stage. This peculiarity can be traced through all the symptoms but more noticeably in the symptoms referable to the nervous system. The nervous manifestations are quite varied and are determined by the particular portion of the nervous system involved. If the motor nerves alone are involved a special group of symptoms develops; if a purely sensory nerve is involved another set of symptoms is present, while if a mixed nerve is affected still another group of symptoms occur, and if in place of deposits on the nerve on in the sheath of the nerve the symptoms are caused principally by the toxins circulating in the blood, the vasomotor and mental symptoms predominate. If the motor nerves are particularly affected by pressure from without by the deposits heretofore described or by deposits within the nerve sheath so that there is either extreme irritation on the one hand or interference with the passage of nerve impulses on the other, the following motor disturbances are found to be present: Fibrillary or tonic contraction of the muscles supplied by the affected nerve, depending upon the severity and location of the nerve pressure. This tonic spasm sometimes results in very severe muscle cramps more often affecting the lower extremities, though it may affect any of the muscles. In extreme cases nearly all of the muscles of the body, straited as well as unstraited and mixed muscles, may be involved. In cases where only individual motor nerves are involved we may have tonic spasm involving only certain muscles or we may have a clonic spasm as observed in tic convulsive and convulsive torticollis.

The patellar reflexes in most cases are apparently normal. In early acute cases they may be markedly exaggerated, while in the late terminal cases they may be sluggish or entirely absent.

The vasomotor symptoms are quite characteristic. In the early acute cases there is a rapid alternate dilatation and constriction of the vessels even on very minute physical or emotional stimulation. In the later stages we get very characteristic symptoms of extreme vasomotor irritation or vasodilator paralysis when the complexion becomes an ashen gray, and in other cases extreme vasomotor paralysis when the patient becomes chronically florid. Either of the latter two conditions associated with a marked thickening of the skin when alcoholism and nicotine poisoning can be excluded are, I believe, usually conclusive evidence of the existence of this condition.

The sensory disturbances are varied, sometimes moderate and sometimes extreme consisting of numbness, tenseness of the skin, burning and often severe itching, the burning being particularly annoying across the back, on the palms of the hands and the soles of the feet. There may be paresthesia, hyperesthesia and hyperalgasias present, and most of them complain a great deal of the limbs going to sleep. If the sensory nerves are subject to presure by the above described deposits the sensory disturbances are very marked, in fact, neuralgia is one of the most frequent and distressing symptoms of this affection. The neuralgia may be general, multiple or single. All of the sensory nerves may be affected. One of my patients suffering from this condition said, half jokingly and half seriously: "I even have

rheumatism in my hair," and the fact was that brushing his pompadour ever so lightly caused severe pain. One of the large nerves can actually often be followed out by the examining finger both because of its actual palpably, swollen stage and its extreme sensitiveness. Many of the patients suffer severely from sciatica, lumbago, facial neuralgia and neuralgia of the brachial flexus, and may suffer from neuralgia of one or all of the sensory nerves.

These patients find it very difficult to adjust themselves to new conditions and surroundings and while they are always dissatisfied and trying to get away from their present occupation they never do well in their new vocation. The city man suffering from this condition tries the country and practically always fails; the farmer sells his farm, goes into business in the city and makes a failure of it. Among the well-to-do class many of them run from physician to physician, from sanitarium to sanitarium, some becoming almost wanderers on the face of the earth, traveling hither and thither, from country to country, trying to get away from their misery. It has seemed to me sometimes that what they are really trying to do is to get away from themselves and their bodily discomforts, which, of course, they cannot do until death relieves them. And let us learn to realize that this ailment is often more painful than an ulcerated tooth or a boil, and much more distressing, because of its persistency.

Extreme irritability is one of the constant symptoms in the severe cases and one of the earliest manifestations of the disease and appears in many forms. Thus these people are, without exception, excessively sensitive to all emotional influences and an innocent unoffending ramark by a friend may be misconstrued and taken up as a slight and result in a flood of tears, or the same remark may be construed an an insult and result in an outburst of rage. This irrisistability is equally manifest when the stimuli affect the ordinary senses of the special senses. Thus, the rubbing of the finger tips over a lightly roughened surface instead of simply being disagreeable may be expressed as causing excruciating pain.

These patients practically all show defective emotional reaction and control, probably best expressed by the word extreme. Thus, they are apt to be either over-cautious or reckless, timid or fool-hardy, shy or over self-confident, extremely reserved or obnoxiously bold, mushy or stubborn, over-credulous or over-suspicious. They are apt to be very arbitrary and unreasonable, garrulous, controvertial, argumentative and dogmative, forgetful, lacking in judgment, excessively vain, and hence subject to flattery, often stubbornly adamant to the well meant a vice of their best friends and liable to do an thing and everything to their own detriment the hands of designing flatterers.

In the earlier stage, the irritative labile sta of the condition, the patient is constantly t ing to go faster and faster. One of my patie expressed it in the following manner: "Wh riding in a street car on an automobile or ev a train, no matter how fast it goes, I feel li getting out and pushing." When such a p tient is speaking his mental processes are co stantly running away from his ability to e press himself in words, he is annoyed by t fact that he cannot speak as fast as he is thi ing. If he is writing, he becomes more a more irritated by his inability to keep up w his thought processes, and his writing becon more and more illegible, partly because of e haustion of his forearm muscles and par because of the ever increasing speed in his fort to keep up with his thought processes.

These patients are unable to recover the selves quickly if they make a false step, be t false step a physical or a mental one. In oth words, they lack physical and mental nimb ness. Such a person, if he make a physical m step is likely "to fall all over himself," as boys say, before he can recover his equilibri and if he makes a blunder in his speech he likely to get in deeper and deeper in his eff to extricate himself, with the result that apologies and explanations add only to embarrassment.

The impairment of judgment above refer to manifests itself in many ways. It will of explain how a business man who has had finest reputation for unusual business ju ment will suddenly lose his grip on things his business will deteriorate. The same is an uncommon experience among over-wor professional men and explains how it happ that some of the leaders of the professi bring out and give expression to such utt stupid theories and public statements in later years of their lives. In their home li too, some of these patients show pronoun changes. Thus, a person who has been and sensible in his home expenditures gradually become more and more penuri refusing to buy little comforts and c veniences, to pay his honest workmen a sonable wage, but spend with a flourish an lavish hand large sums of money on some tirely useless, but more or less showy, proj

In business, as well as in their private li these persons are likely to become excessiv optimistic or senselessly pessimistic, believ in the first place, all kinds of wild, unw schemes, investing and losing their money

em or completely losing confidence in themlves and afraid to venture anything. This tter condition may verge into a senseless ar or even extreme melanchola, sometimes tually leading them in desperation to suicide. The sloven, the laggard, the phlegmatic and e weak willed are rarely ever affected. It atcks the finest type of men and women usually middle life, greatly shortens their period usefulness and their enjoyment of life, aves them partial wrecks or complete derects just at a time when their experience and ature judgment would make them especially seful to the community, state and nation; racks their later years with pain and suffering id robs the aged of that peace and serenity to hich those who have faithfully served their llow men are justly entitled.

Conclusion: What has the general medical ofession done for the relief of these sufferers? hat have we done for the overworked farmer his good wife who have come to us suffering ith this condition? I dare say practically othing. If the time permitted, I could give ou an interesting history of one of these sufrers who had consulted twenty-three regular ctors of medicine without getting a particle relief—in fact, steadily getting worse. And mong the men whom he had consulted were half dozen of the most prominent medical en of Chicago, as well as a number of promiint eastern internists and neurologists. To e the wonder is that he stuck so long to the gular practitioners of medicine without tryg the quacks.

Medicine and surgery have probably made reater progress in the last thirty-five years an any other department of human knowlge. But the good farmer with his lumbago sciatica forgets that he may have been saved om typhoid fever and malaria by sanitary ience, from diptheria by antitoxin, from allpox by vaccination, or mayhap from death om strangulated hernia or appendicitis or llstones by a timely, skillfully executed opation, and forgets the fact that the length of e from 1851 to 1921 has, on the average, inased from thirty-five years to over fifty. say he forgets of these benefits and wants ief from excruciating pain and from many the symptoms which I have above described which we have not given him relief with e degree of regularity to which he is enled. And what wonder is it when after he s consulted three or four of his local phyians and possibly one or two noted specials in distant cities that he seeks relief at the nds of quacks and charlatans? And in the ng run it is well that he insists on getting reef. Progress depends upon dissatisfaction with things as they are. The dissatisfied run to quacks where they rarely get relief but incite the regular practitioners of medicine to greater and greater effort. Every community has a small percentage of citizens who belong in the class so accurately described by Barnum who are not happy unless they are buncoed. If the medical profession were 100 per cent perfect these would still be running to the quacks. But when we become nearly 100 per cent efficient, when we are willing to make a careful study and to learn how to treat successfully this and other similar ailments, the menace above referred to, which is a real menace, not only to the medical profession, but to the public as well, will become almost negligible.

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HOW TO ARREST THE INCREASING PHYSICAL DEGENERACY OF THE RACE

By W. O. HENRY, M. D.,
Los Angeles, Calif.

(Continued from page 53)

A Health Circular from the Indiana State Board of Health, which is doing valiant service along many lines, but especially that of sex hygiene, has some very pungent things to say, among which I quote the following:

"Eighty per cent of males between the ages of 18 and 30 years, contract gonorrhea and is the principal cause of race suicide and causes from 70 to 85 per cent of abdominal and pelvic operations on women."

"Has not the time come for parents and in fact for all thoughtful citizens, to abandon the false delicacy, the prudery, which, by surrounding sex nature with absurd mystery invites the destruction of National health?" "Secrecy, with its 80 per cent of young men infected with gonorrhea, and from 8 to 18 per cent infected with syphilis, has certainly forfeited any right it may once have had as a sane social or public policy."

"The polygamous or 'more than one wife' instinct in the male is largely responsible for prostitution, which has given the venereal diseases to humanity." "It is the male, himself, who compels and largely maintains the institution of prostitution, and prostitution can never be extirpated from society until the male becomes a creature of morals and calm reasoning intellect, instead of instincts. As punitive measures to force men into monogamous relation necessary to reproduction of the species,

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it would seem that the Supreme Intelligence has authorized the venereal diseases." "If all the prostitutes in the world were removed today, on the morrow the ranks would be completely filled with fresh recruits. The polygamous instinct in man causes the demand and the supply follows."

Dr. Belfield of Chicago said: "Probably one-sixth of the American population is now infected with syphilis, but with general circumcision this dreadful scourge would be lifted largely from American social life within forty years." "In its last analysis, from whatever standpoint the problem of prostitution and the veneral diseases may be considered, it is clearly **one of morals,** and it cannot be met on any other basis with a hope of accomplishing lasting results." If instead of morals he had said, "The True Religion," I would heartily agree.

And then the writer of this Circular, for the State Board of Health of Indiana goes on to say, "The problem accepted as a moral problem resolves itself into a problem of education." Here again, if he had said teaching the True Religion and scientific truth, I would be in full accord. But to merely teach **a** religion **or an accepted** form of morality or agree with public sentiment or popular opinion is the merest folly and a deceptive snare. Let the truth be taught, for it is Truth alone that properly enlightens and makes free.

In his concluding remarks he says: "Which ever way we look, we see disease, sorrow and disaster, as the result of sexual error. It fills the streets with unambitious, venerealized men, the penitentiaries with hopeless syphilized criminals, fills our insane asylums, our institutions for the blind, homes for imbeciles and other delinquents, hospitals and divorce courts."

I wish to emphasize with all the power at my command that scientific or college education can never remedy this evil. It must include vastly more or, in short, it must teach every human being's personal accountability to the God of the Bible for his every thought and deed. He alone sees and knows the thought and act of each, and to Him we must give account, therefore, our lives should be governed, both publicly and privately, by the teaching of His Word. No man is moral who simply abstains from sexual vice or any bad habit for fear of physical disaster. No man is moral who abstains from sexual or other vices merely from physical or social danger.

I am well aware of the fact that much modern teaching from the pulpit and in the press tends to coerce men to do this or not do that in response to public opinion or because of physical ruin or business disaster, or man's opinion, and **that** may deter many from a certain course or drive them to adopt a given way; but this is never Bible morality nor the religious teaching of the Scriptures. The man who abstains from sexual vices merely because he might get disease, or lose his standing in the community is not a whit better **in morals** than the libertine who escapes disease or the one who is reeking with syphilis.

The man in jail or penitentiary is in no danger of committing any of these sexual vices, nor is he apt to become a drunkard nor a drug fiend (except from tobacco) while so incarcerated and by wise physical training and occupational teaching you may make quite an improvement in his body, but is any one foolish enough to recommend this as the ideal method to make men? If you must make it physically impossible for men to get alcohol in order to keep them sober; then you must make it impossible for them to get certain other poisonous drugs, like opium, tobacco and chloral, to keep them from becoming habitues; and you must make it impossible for them to commit sexual vices lest they get one of the veneral diseases; and you must remove every sort of temptation out of men's way or make it imposible through physical fear or restraint for him to commit the deeds.

You offer him no incentive to do the right because it is right. You make no higher or better appeal to him than mere reason or temporal material gain such as you might to an animal of the lower order. But for the very reason that man is more than an animal and has a spirit above the beast, he cannot be trained and cultivated as the beast, for when you take from him, by force or fear or threat some darling vice or evil, his spirit rebels and he supplies its place by going off for a substitute which will fill the place of that which he has lost, and while you have cut off one habit or evil or curse, you have not uprooted the source of the evil which comes from within and that is the **"desire"** for some kind of evil

The **"desire"** itself must be changed and not simply the environment.

While the "Desire" for any gratification not in perfect harmony with absolute right or health remains, the man is not a whit better than when indulging in that evil, and if he cannot or dare not indulge in it, he will discover some other outlet for **that evil desire** and therein shows his superiority over **mere animal** life.

Therefore, I am insisting that, until we teach the whole truth as God has given it to us in the Bible and in true science, we can never make much headway in Race Betterment. But

hear some one say, well, now, you are going into theology and that is outside our province. Nay verily! All truth must and does harmonize. Much that has been taught for scientific truth has turned out to be false and therefore was neither truth nor science. Much that has been taught for theological truth has turned out to be false and therefore unworthy of belief or practice.

Men have taught much about Astronomy, and Medicine, and Theology in all the past ages, that were once thought to be great truths, which have proven false and have, therefore, been cast aside. But this in no wise impairs any of the truths of these departments of human study. And always whenever a real truth has been found it has remained unshaken by all attacks and each new truth in any field has but bolstered it up and made it all the more impregnable. Much of the teachings of men have but obscured and covered up the truth and mere dogmas and precedent having come from noted teachers and leaders have become substitutes for the real truth which has waited long for some reformer or independent thinker and investigator to bring to light.

To lend emphasis to the foregoing, let me give you the following important quotations:

Judge Charles A. De Courcey of the Massachusetts Superior Court said before the "American Prison Congress," "The present criminal laws are a disgrace to the country." Mr. Wm. M. Ivins of New York read a paper before the Conference on the "Reform of the Criminal Law and Procedure," in which he said: "Our laws have become a mockery, our penal administration an impossibility, our jails bursting as a result of the criminality of the criminal law, our police problem insoluble and the community itself the victim of the contagion of ignorance which has removed the distinction between criminality and the condemnation, I will not say of society, but of the crowd."

And as an offset to the maudlin and pernicious sentiment, now so widely prevalent that criminals are but sick men whose evil deeds are only the unfortunate outcome of those physical maladies, let me quote from Prof. Felix Adler at this Conference, when he said: "The criminal is guilty—he is not merely unfortunate or sick, the prison is not a hospital. The man is guilty. He has done the dreadful deed which he might have left undone."

Prof. Geo. W. Kirchwey of Columbia University, at this Conference said: "Nothing has been clearer than that the administration of criminal justice has proved to be a lamentable failure. There have been multitudinous illustrations given of that fact, though the one portentious fact which stamps itself upon the memory, is the fact that crime is not diminishing in any civilized country, but that it is, even in our favored land, relatively to the population, actually increasing. Especially is this true of crimes of magnitude, crimes of violence, crimes at which all the repressive force of the state has for centuries been directed." In 1850 the ratio of prisoners in this country to population was one to 3,442, and in 1890 it was 1:757, while in 1910 it was 1:183.

In one year, the population of our country increased 2¾ per cent, while crime increased 74 per cent.

Please notice, too, that these quotations are made at Great National Conferences held just before the beginning of the Great War, and, therefore, cannot so foolishly be given as an excuse for the great wave of increasing crime now sweeping the country and the civilized world, in spite of prohibition, the enactment of the silly Harrison and other narcotic laws.

The Almighty who made the universe and maintains it, never intended to make man so that it would be impossible for him to sin, or to get sick, or suffer disease if he should violate law; and it is the height of impudence or ignorance for puny man to attempt, at the devil's behest, to do so.

There is abundance of proof to show the truth of this proposition. If such a being were created he would be a mere automaton, a machine, and not a voluntary self-directing being at all. Such a being would have no moral character whatever, nor could he possibly develop it.

One writer, and a recognized authority, says: "Crime consists in failure to conform to established usages. Polygamy and Polyandry are crimes or virtues according to usage. Infanticide has ceased to be recognized as a useful family precaution against over-population, but the death of the unborn is about as common a procedure today as infanticide ever was. Codes stigmatize it as a crime, but many individuals practice it with impunity, in both low and high society. The mind of the criminal is undeveloped and his body often reflects the degeneracy of his mind.

Crime is merely one of the symptoms of this degeneracy. Of the prostitute class in general, from 70 to 90 per cent are found mentally defective. Prostitutes in the main are as well satisfied with their lot as other people. Her life is largely a symptom of her degenerate inheritance.

The criminal is a sick man. He no more deserves a definite fixed sentence to prison than does a man with typhoid fever deserve a fixed sentence to the hospital. Both need treatment.

Modern criminology is concerned with finding the causes of crime, and, as far as possible, preventing its occurrence."

How very silly and unsuccessful this plan, is well shown by the results. And it may well be put in contrast with ex-President Taft's saying, "We are suffering from over enthusiasm in the devising of criminal laws to make people good and to reach results that in the very nature of things cannot be attained that way."

It is most unfortunately too true that public sentiment is being powerfully swayed by the large class of leaders who believe and widely teach, "That all criminals are defectives, and that no man of normal, mental and physical status commits a crime, or, Transgressors of the law would be few in number, if any, except for a peculiar and contaminating social environment. Society is to blame directly for the existence of the criminal class, because she neglects to conduct her economic and social affairs so as to surround all of her members with those influences which make for good alone."

(To be continued)

A CONTRIBUTION TO POST MORTEM EXAMINATION

By JOHN W. SHUMAN, M. D., F. A. C. P.
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TO post mortem study the diagnosis and treatment of ill health owes a vast debt. Without it anatomy, pathology, and allied subjects would be valueless. Individually and collectively we can do much to further the recovery from disease by post mortem studies and it is with the hope of stimulating such work that this article is written. It is not a very difficult thing to secure an autopsy, what follows will prove this assertion.

Briefly, my first experience with post mortem work, outside of the curriculum studies gained upon cadavers necessary in securing a degree in medicine, was securad while a resident physician in the Allegheny General Hospital, Pittsburgh. My medical chiefs, Drs. O'Hail, McKelvey and Wolf, stimulated my ambition to check up the clinical findings by post mortem examination. It is unnecessary to go into detail and tell how much it cost them in actual dollars for the burial of bodies, tips to the undertakers, etc., but during one year seventy-five autopsies were held in the pathological laboratory of that hospital; only one body got away without a complete autopsy, but not however, until with a large trochar pus was secured from within the left chest (intralobar abscess). Dr. Frederick Proescher held these autopsies. I assisted at every opportunity. The chiefs and assistants were always present, the clinical findings read and compared with the post mortem data. Though many corrections were necessary valuable lessons were learned and many complex clinical symptoms were explained. "Pneumonia," "valvular heart lesions," "syphilis (tertiary)," "gastric ulcer," "cancer," "nephritis," etc., were recognized as real diagnostic terms for such pseudo-diagnoses as "chest pain," "headache," "neuritis," "rheumatism," and "indigestion."

While with the army in France all cases dying under our care were examined after death. Much praise is due Majors Walker and Van Vulza, chiefs of the Base Laboratory of the Intermediate Section, S. O. S., for their hearty co-operation in performing these autopsies. I am certain that if the medical officers who referred the cases to the hospital with the diagnosis of "influenza" on the field medical cards had been present at the autopsies and heard the ward surgeons read the clinical diagnosis "lobar-pneumonia" with the substantiating clinical data and then have seen the consolidated lung tissues cut "like liver" and "not float on water," they would have felt more like taking a stethoscope to "sick call" instead of a lead pencil.

An instance worthy of report which evidenced the value of an autopsy is embodied in this: Colored soldier developed empyema following right lobar-pneumonia, was transferred to the surgical ward, operated upon and recovered until the tenth day when he had a sudden rise in temperature, pulse rate, and white blood cell count; his belly was rigid. Consultation gave the opinion that a "pus pocket" in the right chest was the cause for the symptoms. Under anesthesia an attempt to locate the same failed. Two days later the patient died and the surgical treatment was blamed for "operative death." Autopsy revealed "chronic active pulmonary tuberculosis, both lungs; acute general peritonitis secondary to a perforated intestine (terminal ileum area), (tubercular ulcer?)." Instances like this are not rare if we play the game up to the end.

Following are the essentials in the protocols of forty-three autopsies held by me, during the past ten years while engaged in private practice. Many were referred and I had not the opportunity to make an antemortem diagnosis, thereby incriminating myself. In quite a number permission was secured to open the head, chest, or abdomen only; and nearly all were

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held under trying circumstances, i .e., in private homes, undertaking establishments, graveyards, etc., but nevertheless excellent lessons were gained.

AUTOPSY RECORDS SHOW THAT:

1. There was no clinical diagnosis	in 13 cases	No. 8, 10, 11, 12, 17, 21, 23, 25, 26, 28, 33, 40, 41.
2. There was no pathological diagnosis	in 4 cases	No. 4, 25, 28, 38.
3. The clinical and pathological diagnoses agreed fairly well	in 23 cases	No. 1, 2, 3, 6, 7, 9, 13, 14, 15, 18, 19, 20, 22, 24, 27, 29, 30, 32, 35, 36, 37, 42, 43.
4. The clinical and pathological diagnoses totally disagreed	in 5 cases	No. 5, 16, 1, 34, 39.
5. Unsuspected pathological findings were brought to light (With these are also included those in which no clinical diagnoses were made). (See No. 1, this chart)	in 24 cases	No. 1, 2, 5, 7, 8, 10, 11, 12, 15, 16, 17, 21, 23, 25, 26, 30, 31, 33, 34, 36, 39, 40, 41, 43.

Causes of Death	*Number*	*Autopsy Record*
Malignancy	6	No. 10, 12, 22, 30, 42, 43.
Tuberculosis, all forms	7	No. 1, 9, 14, 16, 24, 31.
Pneumonia (lobar)	1	No. 36.
Cardiac (Valvular disease)	8	No. 7, 11, 13, 15, 23, 26, 29, 40.
Nephritis	3	No. 8, 33, 34.
Epidemic cerebral spinal meningitis	1	No. 3.
Peritonitis { General	2	No. 18, 41.
Peritonitis { Local	1	No. 39.
Haemorrhage (Post-operative. (2) Intra-cranial 1)	3	No. 2, 21, 35.
Muco-colitis	1	No. 6.
Myelogenous leukemia	1	No. 32.
Fractured skull	2	No. 20, 37.
Acute gastric dilatation (post-operative)	2	No. 19, 27.
Epileptic seizure (Nocturnal)	1	No. 5.
Undetermined	5	No. 4, 17, 25, 28, 38.
Total	43	

From these forty-three autopsies data was secured worthy of publication in medical journals in six instances.

1. "Seminal Lithiasis vs. Nephrolithiasis" (Journal of S. G. and O., March, 1913) by C. S. James, M. D., and author. Autopsy record No. 2.

2. "Intracranial Haemorrhage of the New Born," (Jour. A. M. A., Vol. LXIII, p. 1760, Nov. 14, 1914). Autopsy record No. 21.

3. "Splenomegalia, — Autopcy Report," (Jour. Lab. and Clin. Med. Early 1917.) Autopsy record No. 32.

4. "Intra-Ocular Sarcoma with some Comments on Differential Diagnosis" (Iowa State Med. Jour., April, 1916), by W. J.. Bussey and author. Autopsy record No. 22.

5. Autopsy record No. 4 was reported under "Five Mistaken Gastric Ulcer Diagnoses," (St. Paul Med. Jour., May, 1915).

6. "Tubercular Ulcerative Colitis," (Jour. A. M. A., Vol. LXXVI, p. 240, Jan. 22, 1921), by C. S. James, M. D., and author. Autopsy record No. 1.

Autopsy record No. 5 was most interesting on account of the bringing to light that two years prior the findings "pyuria, with tubercle bacilli coming from the right ureter made for the diagnosis of 'renal tuberculosis,'" (Dr. S. S. James, Centerville, Iowa). This was followed by "medical treatment" and a disappearance of the urinary symptoms. At the autopsy (death due to smothering during nocturnal epileptic seizure) findings were: Right kidney globulated 4½x2½ inches, tense and resistant; ureter one centimeter wide; kidney sectioned and a creamy caseous material exuded; four large abscess cavities and a number of smaller ones observed; kidney substance was practically all destroyed; ureter completely plugged with caseous material two inches from the pelvic openings demonstrating the "cure" was only an arrest.

Autopsy record No. 6 in which the clinical diagnosis "diarrhoea" and the post mortem diagnosis "muco-colitis" was made, the protocol was sent to Dr. Hale White of London who commented, "very interesting—however, we frequently come across this type of case in which there is no explainable cause."

Autopsy record No. 43 was interesting for the fact that although the clinical diagnosis "gastric cancer (obstructing)" in a male, age 74,, was verified at autopsy, the autopsy revealed a well-walled off abscess with the appendix ruptured into the same.

I might enumerate more but do not wish to tire you. The subject of securing autopsies is one which could be elaborated upon, but what one really wants in this world he goes after

and secures. Every one, in order to hold an autopsy in a satisfactory manner, should have the necessary and proper instruments. To me my post mortem grip is as worth while as my consultation grip and the instruments in it are kept sharp, bright and clean. A short time ago I was surprised when one of our leading surgeons came to hold an autopsy with his old, dirty, inadequate student dissecting case in his hip pocket!

The autopsy findings should be carefully written up, preferably dictated at the time performed. If this is not possible, it should be done soon afterwards, so that good records are obtained. The same is true concerning microscopic findings, serologic and other tests when necessary.

535 Frances Bldg.

ABSTRACT OF DISCUSSION

Dr. Peterson: If the ideas of this worthy paper are carried out we will be more benefited than the patient,—yet some of the living will be benefited.

Dr. F. E. Way, Kansas City: I wish to relate an autopsy I performed on a man who was wounded during the Civil War and forty years later I removed a bullet from just outside one of the ventricles of the heart; this explained the mysterious symptoms of which he so long complained, and died.

Dr. Sachs, Omaha: I think this paper brings a fine message. I have a system introduced at the hospital which helps to procure more autopsies: After a death, as soon as the relatives arrive, we immediately begin to get their permission, and we have increased our autopsies from 10 to 30 per cent.

State Medicine means the State Board of Health, which incidentally is the only kind of State medicine that will ever exist in this country. It will and does advance general rules of hygiene, such as proper care of streams and sewage; inspection of school children; registry of births and deaths. The domiciliary visitation by the family physician is the greatest stand for state medicine. State Health Insurance is the red rag before the medical bull. It will not happen in the United States, as is shown by experience in foreign countries. It must not, however, be confused with voluntary health insurance.—Dr. Frank Billings.

Lift and the world will lift you.—Fair Play Advocate.

Lean and down we go.—K. C. Times.

—For the noblest gift
Is world uplift
When the skids are ready to go.—H. N. J.

¶ It is generally estimated that the Tubercular are 15 to 20 per cent syphilitic.

DIAGNOSIS AND TREATMENT OF OSTEOMYELITIS

By A. C. STOKES, M.D., Omaha, Nebr.

OSTEOMYELITIS is an acute infection of bone which may become chronic. Osteomyelitis of external wound origin is represented by bone infection following compound fractures, gunshot wounds and other open bone injuries. It presents many of the same symptoms and much the same pathology as that presented by osteomyelitis of haematogenous origin. The treatment, however, is considerably different especially since cases of external wound origin present no period of acute closed infection.

The urgent cases of acute osteomyelitis represent only those of hematogenous origin, which occur largely in the long bone of children. In order or frequency, the records show the following bones affected, viz: Tibia, femur, humerus, radius, ulna, fibula and bones of the skull and the pelvis.

The acute form presents a most imperative surgical condition. It is as necessary to make a nearly diagnosis of acute osteomyelitis as it is that of a ruptured appendix or a perforated gastric ulcer. It demands early surgical treatment if the limb is to be saved from either a long period of infection or entire loss.

The symptoms of this form of infection are in order of importance, sudden onset with pain high temperature, tenderness, swelling, local redness, history of trauma, either real or imaginary, and considerable prostration.

The sudden onset of pain, accompanied by high temperature, anywhere in a long bone near a joint in a patient under twenty-one years of age, should be considered presumptive evidence of acute osteomyelitis. If, in addition to pain, tenderness within two or two and one-half inches of a joint over a certain small area the diagnosis is likely, and if, in addition to this, swelling and redness is observed, immediate surgical intervention is justified.

The symptom of pain, although the first subjective symptom of value, is often a rather late one; and some writers question whether pain is not due to pressure on the periosteum, thus indicating that the bone is perforated before the beginning of pain. It is, however, probable that pain begins when the developing toxins increase the intra-osseous pressure.

This sequence of events generally follow one another in much the same order and, require from twenty-four to thirty-six hours to com-

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plete the picture. No doubt, during this time, infection has escaped from the point of the embolism or thrombus at the terminal artery in the diaphysis of the bone, and how far it has spread during the first few hours cannot be determined, but in a considerable number of cases the entire marrow is flooded with infection. Localizations may form and perforate the bone cortex at a given point, and may be opened and drained; and, subsequent to this, other localized abscesses may do likewise, and so on. This process then becomes chronic, and may continue for years.

The study of typical cases, however, leads one to the conclusion that, if the original focus is drained early, other localizations do not occur as acute symptoms, or may not appear at all. In other words, if the intra-osseous pressure is relieved early, the natural body defenses will control the adjacent infection in a certain percentage of cases. If adjacent localizations have occurred they may then become latent, requiring months and sometimes years to develop, or subside entirely, leaving a residue which results in bone cysts or localized areas of sclerosis or softening.

The problem then is early recognition and proper drainage, that is, as in acute appendicitis or perforating gastric ulcer the bone should be treated surgically in the first twenty-four hours after the beginning of the symptoms, because the earlier the bone is opened, the sooner the extension of the infection is limited, and the less frequent the sequelae. An early diagnosis and surgical treatment is, therefore, mandatory.

The point of greatest tenderness is the point to be chosen for operation. The incision must be carried through the tissue and bone into the marrow. The opening is made through the bone best by the use of a dental drill, or burr, or trephine, or Hudson drill. Hammering, pounding and chiseling an infected bone is a crime. The greatest care should be used in surgical approach to the abscess. If pus is found, the edge of the bone should be rongeured off as far as the abscess cavity goes, in order to give free drainage. The management of the soft tissue is most important. The muscles and fascia above the cavity must be kept wide apart. Tube drains or little bridges made of hardwood placed between the soft parts are often valuable.

Any method may be used for keeping the wound open, except packing with gauze, or pouring oil, or bone wax, or any substance which fills the lymph spaces in the bone in acute osteomyelitis. Gauze is the common plug that is put into the bone. This is a relic of antiquity and should never be used, not even iodoform gauze. One must lay down the dictum with more than ordinary emphasis: "Keep muscle and skin and fascia apart, and let the wound heal from the bottom:" This is no more or less true of osteomyelitis than it is of a boil on the back of the neck, for, pathologically, they are one and the same process and require unobstructed drainage. The bone, however, requires a longer time to reform and this condition must be allowed for.

It has been written and repeated that one should never remove bone beyond the abscess cavity. Of course, care and judgment must be used in all cases, but the general principle must hold for bones, as well as for the abdomen, namely, the opening of new avenues of infection will not be dangerous if the drainage is good, because the law of the direction of least resistance will obtain, and the infection will drain toward the surface skin.

The incision in the soft parts is frequently too small. It should be large enough to give plenty of room for a complete operation. A good view of the area should be had and sufficient bone removed.

At operation one may find one of several conditions:

1. A simple abscess under the periosteum, so that when incision is made through the periosteum, pus flows out. Some surgeons stop here. Most of these cases become chronic, and after months or years develop other abscesses, which, in turn, produce another acute exacerbation and another sinus and more dead bone. An involucrum and sequestrum has usually begun at this time.

2. There may be only a local rarefied area of bone, the periosteum not inflamed, and no pus under it—the bone soft and small sieve-like perforations are seen. This is an early stage of the disease, and lucky is he who finds this case, because no periosteum has been removed from the bone and no sequestrum or involucrum begun.

3. There may be a well-established sinus with a perforated periosteum and pus in the surrounding soft parts. In any of these cases, the simple establishment of a small hole in the bone and a small opening in the soft parts are not sufficient to give proper vent for the pus. **There must be** (we repeat) **complete drainage,** and to get this we must have a complete operation.

4. Often at late operation in acute osteomyelitis one finds, not one sinus extending into the marrow of the bone, but multiple sinuses in different parts of the bone. Keen says, in his last volume, "incomplete removal of parts of the diaphysis of bone allows the infection

to extend through the medulla and do much destruction."

The line between acute and chronic osteomyelitis is often not perceptible—most cases are chronic before they are diagnosed. Many of these should be diagnosed; others cannot be diagnosed quickly enough to prevent extension and metastatic abscesses, bone destruction, periostitis and the formation of sequestrum and involucrum.

The bones enlarges, becomes irregular in outline, and oftentimes bowed. The infection usually remains in the diaphysis, and is only in late cases and older patients that the joint becomes infected. When this occurs, it usually means amputation. The periosteum is thickened and shows the results of a hyperplastic inflammation. Soft parts are very adherent to bone.

The recurrence of osteomyelitis is frequent, and one of several conditions may be responsible:

1. Localized areas of pus in the bone marrow suddenlly activated by trauma or lowered resistance, or both.
2. Infected areas between a sequestrum and involucrum.
3. Subperiosteal infection, more or less latent.

The history of old recurring osteomyelitis is much as follows: An acute exacerbation, the physician is called, the abscess is opened, and perhaps the sinus in the bone is enlarged. The patient recovers; the sinus closes, and the patient is discharged; when in a month, or year, or five years, the patient returns with another sinus, and the same performance is repeated; and so ad infinitum, until the process either wears out the patient or the limb is amputated. In one of our cases this process had continued for twenty-four years, and during the productive age, the value of this man to society was nil, to say nothing of the pain of seven or eight operations and the suffering from repeated chronic inflammation.

The object of this paper is to bring this fact forcibly to your attention and to suggest some methods of procedure in both chronic and acute osteomyelitis, which may partially reduce this great loss to the community and to the individual.

The diagnosis of chronic osteomyelitis is so simple and self-evident that, generally, it needs no comment. There is the history of the acute infection and the change in form of the bone with old, irregular nodules.

Having established the diagnosis of chronic osteomyelitis, it becomes necessary to study it with a view of determining the condition of the bone, the presence of sequestrum, of localized abscesses, of involucrum, and the condition of the periosteum.

In this study our most valuable aid is the X-ray. Either rarefaction or calcification must take place in a bone before the X-ray adds anything to our knowledge. Therefore, in acute infections of bone, it is some time before the X-ray shows anything of value. In chronic osteomyelitis, however, it aids in determining the presence of sequestrum, involucrum, or of localized metastastic abscess. Frequent and continuous use is made of it. Other aids are shape of the bone, which is often bowed irregular and shows the results of numerous sinuses and probably several operations. The periosteum is thickened and can be felt beneath the soft tissue. Nichols recommends the use of a sharp awl-like instrument which will readily pass through the involucrum, ,but stop at the sequestrum. Outside of treatment, one finds:

1. Localized areas of pus in the bone-marrow sometimes at one end and sometimes at the other and sometimes in the shaft. By means of the X-ray these abscesses may be located and drained, according to the principles laid down above. This often requires opening the bone in several places and perhaps finding several areas of softening in the cortex or marrow surrounding invariably with sclerosis in marrow and cortex, but not necessarily with sequestrum. A thorough cleansing of these cavities oftentimes completes the process. The attempt made to sterilize them and fill them with some foreign substance is to be condemned in no uncertain manner.

2. **Infection around the sequestrum.** If the sequestrum is loose, the treatment often is simple; namely, remove the sequestrum, drain, and the patient recovers. In certain cases, however, the sequestrum is not completely free. Then comes the question as to what to do. The sequestrum never loosens until the endosteum is destroyed, that is the circulation to the bone is cut. The involucrum begins to form the minute the extension of the infection through the cortex of the bone begins to raise the periosteum; and the further the periosteum is raised from the bone, the greater the bone-struction. The sequestrum then becomes a foreign body, and prevents drainage, or the continuous death of endosteum and extension of infection to the Haversian system continues the destruction of bone.

Nichols has made a study of chronic osteomyelitis, and has laid down the following principles of treatment from the surgical point of view, and I believe them to be proper, though radical:

1. Removal of the necrotic sequestrum before a definite involucrum has formed while the

periosteum is still plastic. This operation can only be done early in case of infection and in cases where there are two bones in the leg. It consists in dissecting the entire shaft from its periosteum and removing it either in its entirety or for a part of its length, leaving the periosteum and sewing up the same and allowing bone to form within this periosteal tube. This operation has given excellent results in many cases. It requires careful judgment and a mature surgical experience to determine the character of the case to which this method is applicable.

2. **The removal of sequestrum when there is only one bone.** If done too soon, the muscles retract, and the limb is deformed; on the other hand, it has been definitely shown that the involucrum will not produce from within if the periosteum has often arrived at any thickness or rigidity. In general, Nichols claims the sequestrum may be removed when the entire thickness of the involucrum is equal to one-half of the normal shaft. After such an operation, splints must always be used. This operation is long and oftentimes fails.

3. **Treatment of the chronic stage with dense involucrum and extensive sequestrum.** This is the form which is the greatest problem. It is generally of long duration. If the sequestrum is loose, it may be readily removed and the area drained and the bone allowed to reform if it will. In many cases, the inner side of the involucrum does not continue to proliferate, and so, if the sequestrum is removed, there remains a large, infected, discharging trough in the bone. Many methods have been devised to correct this. These troughs have been filled with sea-sponges, wax, vaseline, and other substances. The procedure is generally to attempt sterilization of this ragged, infected area by means of pure phenol and alcohol, and then fill the bone trough with some one of the above substances. Obviously, this procedure must fail in a very large percentage of cases.

In many cases the sequestrum is fast in an eburnated area of bone. The bone-marrow is sclerosed within the sequestrum, and the sequestrum is surrounded without by an involucrum. The technic of the operation is more difficult in this case than in those cases where the sequestrum is loose.

In most chronic cases of osteomyelitis, ,there are, or have been, several sinuses, some healed and some discharging. The sequestrum is often in several parts, eburnated bone being situated between the ends of the same.

Without going further into the literature of this question, I wish to close with a short description of what we believe to be the proper procedure in the old chronic forms. In cases where this operation has been carried out, the patients have made a good recovery, except two. One died about two hours after operation, and the other had a fracture of the remaining portion of the bone, but has made a good final recovery.

The operation is as follows:

Make an incision through the soft parts over that portion of the bone which is nearest the surface and farthest from large blood vessels and nerves. Strip off the periosteum over the roughened area of bone. With a circular saw attached to a motor, remove a small V-shaped portion through the cortex of the bone, extending from normal bone-marrow to normal bone-marrow along the diaphysis. This incision should go through the involucrum and the sequestrum and the sclerosed endosteum to the point where the old marrow cavity previously existed. This is for diagnostic purposes.

The V portion is then examined and one is able to determine how much of the bone is sequestrum, how much of it is involucrum, and what portion of the area is eburnated. The entire diseased area of the bone may then be removed with a circular saw, leaving only a very small inverted V of bone on the opposite side. The part remaining is from a third to a quarter of the shaft of the bonee, depending upon the amount of diseased bone which is found necessary to remove. In other words, a small portion of the bone is left, usually at the opposite side of the bone from where the disease has been most active, and usually the part of the bone which is still more or less normal. By this method no overhanging edges or cavities remain, only a small shaft of the bone to maintain the normal length and prevent muscular contraction. The hyperplastic periosteum and remaining soft tissues are allowed to fall down upon the smooth cavity covering it over completely and snugly, leaving no holes or edges, no areas where nature must perform miracles in healing and no localized abscesses or an opportunity for recurring infection.

I have done this operation thirty-four times, and can highly recommend it. We feel sure that the above operation, while radical, is the final answer for the cure of chronic osteomyelitis, in which areas of eburnation, involucrum, and sequestrum exist after years of recurring infections, sinuses, and inflammations.

If a circular saw is used it can be done rapidly without loss of blood, and very little time is required for such a large operation, and the shock is comparatively little.

DISCUSSION

Dr. E. D. Twyman, Kansas City: Unfortunately the surgeon does not see these cases early enough. They vary in virulence, some of them rapidly result

in death, owing to the intense toxemia carrying the infection elsewhere. Multiple Osteomyelitis is sometimes seen,—as many as five foci. In some cases, the whole shaft of the bones dies. Other more favorable cases have only one abscess, or several small ones, so that the surgeon can do something. If in the tibia, it is more accessible if on the inner side. It is well to remember that two operations are often ntcessary; the first to provide early and free drainage, opening, if neceessary, the entire shaft and removing all the cortex, not the medulla. A sequestrum may form, and nature will make the cloaca for drainage. With luck and skill the second operation may not be necessary.

In some late cases in children, the epiphysis dies, and I would like to know if that is inherent in the case, or if some one injured the epiphyseal cartilage.

Dr. Werndorff: I believe that the infection is due to the staphylococcus pyogens. sometimes the aureus, sometimes the albus. There is a difference in acute infections between adults and children. The virulence in children is so high that sometimes there is no time to do anything—they die in 24 hours. Diagnosis is impossible, and even post-mortem shows nothing. In one case, in which the X-ray showed nothing, we found on dissection, a hyperemic condition in the epiphyseal line. One clinical symptom, early recognized, may save the life of a child; and that is the shock or simulated convulsion on percussion of the bone. We merely open and drain, but avoid trauma, using no chisel, but do as the Doctor said in his paper. Another feature is the extent of the second operation. In the beginning we can not say how far the necrosis will go.

Dr. Reynolds, Kansas City: One important point has not been mentioned—the tremendous high white cell count in the early stage. I do not believe these cases are so very fatal; people die from hematogenous infection in any part of the body. The fundamental point is early recognition; and early drainage will save life and function. In old cases the joints are not involved; the destruction of the bone is below the joint. The drainage should be adequate, not big drainage.

Dr. Van Wedel: One point is important; When the X-ray shows the condition, it is too late.

Dr. Mattingly, Sapulpa: The country Doctor finds the child with the bone tenderness and the fever. He is miles from town, and no hospital. Immediate action is necessary. Tell the folks you will operate; ask for a brace and bit. Boil it. Bore a hole in the bone; do no more, and you will save the child.

Dr. Stokes (Closing): There is a virulent type; but death is comparatively rare; at least right away. I had a case; very extensive, in a child; opened the tibia, later took it out. Dr. Bevan said to me that these children have bacteria in their blood all the time. I rather doubt that; I think it is a metastatic infection. In cases where the epiphysis and cartilage are destroyed, we found, by making many slides that they have both staphylococcus and streptococcus. According to statistics this disease is more common in the upper part of the femur than elsewhere.

Splenectomy for Splenic Anemia shows results to be good but mortality high; for Pernicious Anemia, in early cases, it is justifiable; for Myelogenous Leukemia, shows poor results; for Haemolytic Icterus, is a real cure in many cases; for Septic Splenomegalia, is undoubtedly indicated for some of the cases. The death percentage in these cases is about 10 per cent at the Mayo Clinic, according to Sir Berkley Moyihan.

NOTES ON GRAVES' DISEASE

By GEORGE RICHTER, M. D.,
Visiting Physician, City Hospital, St. Louis, Mo.

THE GREAT clinician Wunderlich, now almost forgotten, in spite of his pioneer work in clinical thermometry, has said: "There is no thorough knowledge in medicine if not founded on its history. The want of historical knowledge in modern research has, however, its good points. For the rediscovery of forgotten facts verifies them to a certain extent. This is illustrated by modern research in Graves' disease. And concerning some of such studies one is reminded of what another great and long forgotten clinician, Kussmaul, said in reference to a certain new "fad" in medicine of his time: "Whatever is good in this is not new, and what is new is not good."

The greatly increased metabolism in that disease had been observed and carefully studied very many years ago. The determination of basal metabolism as shown in the changed nitrogen balance required good training in physio-chemical technique. The present improved methods studying the respiration quotient also require thorough training and about as much apparatus. Where is the progress?

The iodine complex in the thyroid has been studied over again. Its chemical structure is now better known and some theories have been published concerning its function. A new classification of diseases of the thyroid has been advanced. New symptoms have been described. Most of which may be found in some very old editions of medical text-books. The practical outcome of all such studies has been very scant. What interests patient and doctor most is therapeusis, and in this, views are as manifold as ever. The laboratory has given us but very little aid and the practitioner again falls back on much lamented empiricism. But is not the laboratory, after all, anything but a more or less elaborate empiricism? With the one advantage that it may choose its methods varying the conditions of the experiment, yet never in a position to imitate in an exact manner conditions and circumstances which prevail in a living but sick person.

After the laboratory has worked out as best it could some means of meeting certain pathologic phenomena, empiricism is called in to make the clinical tests. And these empirical findings decide definitely the problematic value of the new method or healing agent.

Such a clinical test was made with a preparation made from the anterior lobe of the pituitary body. The still rather vague facts concerning an interrelationship between the thy-

roid and the pituitary suggested to me the treatment of Graves' disease with the just mentioned preparation. I reported the first results in a paper read before the Physicians' Club and published in the Medical Herald, August, 1916.

The patients presented at that time are today in best of health and show no evidence of their former illness. Since that time I have seen in consultation or in practice over one hundred cases of manifest hyperthyroidism, the large majority presenting the classical triad of exophthalmos, palpitations and tremor, some with either Graefe, Stellwag or Moebius ocular signs, with tendency to perspiration (palm of hands), marked loss of weight while the appetite was excessive, and that is quite ample proof of increased metabolism.

All these cases have been treated with pituitary anterior lobe, the more obstinate cases by the hypodermatic route, (the material used was Antuitrin, Parke, Davis & Company), and all of them have been benefited, many have been cured, and in none has there been an operation performed. Several cases suffered relapses and in a few the repeated treatment on the same lines was not satisfactory.

The cases include all "types," the cystic, the adenoma, the goiter-heart, the vagotonic and the sympatheticotonic. The following histories of several cases picked at random may serve better to illustrate the method and results.

No. 1590. A lady, 32 years old, developed rather rapidly a true "exophthalmic goiter" five years ago. Tremor, very marked exophthalmos, extreme nervousness and rapid wasting made her quite miserable. She was confined to bed for about six weeks. She received every other day a hypodermic of "Antuitrin," recovered at first slowly, then more rapidly within about four months and is today entirely free from all symptoms. The exophthalmos has also disappeared. The thyroid was moderately enlarged and tender on pressure. Pulse came down from 130 to 80 p. m.

No. 2811. A college teacher, 32 years old. He had been treated by many competent men for a chronic mucous colitis without obtaining any relief. He was very nervous, a hard worker and careful in his ways. The tachycardia, the glistening eyes and a fine tremor of fingers suggested a Basedow. Pituitary anterior lobe gradually relieved his condition and he is now quite well. Treatment commenced a year ago (until April 1, 1921). The colitis subsided without any special treatment. A similar course was observed in several other cases. The colitis mucosa as such is, however, not relieved by pituitary treatment.

No. 2799. A lady, 42 years old, had four children and is a hard working housewife, had a cystic goiter for about fifteen years. Within the last fourteen months a marked hyperthyroidism developed with almost general tremor, very marked exophthalmos, sweats, Graefe, etc. Pituitary per os had only a very slight, dubious effect. Hypodermic injections with pituitary anterior lobe caused a rapid improvement. Within three months the exophthalmos had disappeared together with all the other adverse subjective symptoms. The large cysts persist of course.

No. 1998. A mechanic, 41 years old. Exophthalmic goiter with cysts. Upon the hyperthyroidism appear symptoms suggesting a beginning myxedema. Troublesome colitis. Vagotonic type. Pituitary produced a more comfortable existence.

No. 2265. A school teacher, 30 years old. All the classical symptoms of beginning Graves. Intercurrent appendectomy complicated by what was interpreted as hemophilia. Full recovery in due time. Pituitary given by mouth, 5 grains t. i. d., as the average dose.

No. 1812.. Lady, 37 years old. Rather stout and very nervous. Cystic goiter with hyperthyroidism. Treatment at intervals promptly relieving the condition temporarily. Returns for treatment only when feeling worse. Frequent intestinal disturbances.

No. 1290. Lady stenographer, 24 year old. Besides the usual typical symptoms, there was a curious extreme mydriasis of which the cause could not be discovered. Pupils reacted very slowly to strong light. Gastric symptoms were not relieved by laparotomy. Pituitary was administered hypodermatic, relieving symptoms quite markedly. The hyperthyroidism is, however, still in evidence.

Quite a number of cases were those of young girls about the age of puberty. Pituitory treatment and improvement went parallel, though it could not be asserted that in this self-limited condition the improvement was due to the treatment. Much more satisfactory seemed the treatment in those cases where girls approach the age of about 30 years, and have failed to marry. In men the "goiter-heart" seems to be rather more frequent than the true Basedow. In these cases accompanied by a very annoying tachycardia the internal administration of adrenalin brings the pulse rate down quite promptly. For the same purpose I begin treatment with adrenalin eight drops t. i. d., in water and thereby reduce the pulse rate usually by about 30-40 beats p. m. in two weeks. This also is empiricism and true at the same time.

Metropolitan Building.

The Melting Pot

¶ The amount of gastric juice secreted by the average stomach after an ordinary meal is about 700 cc.

¶ The autononmic or vegetative system forms the nervous mechanism by which the chief functions of life are performed outside the conscious mind. Broadly speaking the function of the autonomic system is, of the parasympathetic, to store up energy and, of the vertebral, to set it free.

¶ Acidosis results from an unbalance of food and deficiency of the vitamines. The symptoms of acidosis in the milder forms are weakness, anemia, shortness of breath, palpitation, nerve pain in various locations, or tenderness of nerve; legs swelling below knees. Of the severer forms, there is also dilated pupils, swollen gums, cardiac dilatation, muscular atrophy, various paralysis, hemophelia.

—'N'everything.

¶ With the "Electronic Tests" one may elicit the reaction for the prediction of parenthood. In one case the writer predicted fecundity and the gender ten minutes after the act of coitus. —Dr. J. W. King, Bradford, Pa.

—All who do not understand this, stand up!

—All be seated!

¶ "Electrobiography suggests the graphic reproduction of organs by aid of the electrical emanations from the latter. The writer has repeatedly demonstrated "the electrical nature of man" by hypersensitive apparatus.—Physio-Clinical Medicine, Sept., 1921.

—I am a hypersensitive apparatus, but after reading the above I seem to register zero.

—This instrument must be a cross between an X-Ray and a comptometer and a Who's Who.

¶ Rectal examination with rubber gloves is usually sufficient for all internal examination of a normal case of labor. Finding abnormal conditions may subsequently justify the use of the vaginal route, with another glove, of course.

¶ According to the Literary Digest, the correct pronunciation of Wasserman is Vasserman; salvarsan is accented on the second syllable; salicylate is pronounced sal-i-sil-et, with the accent on the first syllable; ration is pronounced rash-an.

¶ With local anesthetic now safer than cain, and which may be prolonged almost definitely, many operations may now be d without resorting to general anesthesia, wh has such a horror for most people, ther causing them to postpone operations t should be attended to.

—Hernia is a case in point.

¶ Pyorrhoea Alveolaris, or Rigg's disease still the dentist's bugaboo. He is wrestl with it faithfully, but its true cause is elu and the cure is equally fickle.

—The committee reports progress and a for more time.

—When the lucky dentist finds the cure afflicted ones (80 per cent of the populatic will flock to his door.

¶ Dr. Crafts says he is going to put the Sur Sunday. Now if the Doc. will put the pay payday and the "mon" in Monday.—Brook Eagle.

—There will be more "wed" in Wednes and more "son" in Sunday, and more "fry" Friday.

¶ Doctor it may be necessary for you to down your Materia Medica and study up Sodium Citrate. There is a very convinc article in Medical Record, Nov. 5, 1921, Specific Cure for Pneumonia and Pulmon Tuberculosis." The author says that he treated personally successfully, over 100 ca with two deaths.

¶ The cerebellum is principally concer with the maintenance of equilibrium and n cle tone. It controls the movements of head and eyes appropriately. If the mecl ism of control is disturbed nystagmus and tigo will be produced thereby. Interferenc the efferent fibers is followed by loss of mu tone (hypotonus) chiefly on the same sid the body lesion. There may also be diffic in executing such movements as the prona and supination of the arm with rapidity. cerebellum has also to do with co-ordinatio muscular movements and the regulation of strength of nervous impulses passing to muscle. Ataxy is the most obvious symp of cerebellar disease. In the legs the at reeling gait is noted; in the arms the ata shown by the erratic manner in which th tempt is made to make some particular m ment, such as placing the finger on the t the nose. Carebellar ataxy is modified bu tle by closing the eyes; and in this particul differs from tabes.—Dis. Nerv. Sys., H Thompson..

—Harry Nelson Jennet

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

PHYSIOTHERAPEUTIC WEEK IN KANSAS CITY, APRIL 17-21

SOMETHING TO THINK ABOUT

THE physician who can promptly and accurately answer the following questions is competent to undertake high-frequency practice:

What is meant by high-frequency? From what urce is it obtained?

What is an alternating current? How does it dif- from a continuous current?

What is an alternation? A cycle? A period? How y the number of cycles be changed?

What is the best source of supply for high-fre- ency currents?

What is necessary to change a low to a high-fre- ency?

What is a transformer? Its function? What are requisites for a high-frequency current?

What is a condenser? What is its function?

What is meant by spark gap? What is its func- n?

What is understood by the word induction? How oduced?

What is a primary coil?

What is a secondary coil?

What is a core? How made? What is meant by en and closed cores? Which kind of a core is ally used in high-frequency machines for medical ? Why is it to be preferred from other styles of es?

What is understood by voltage? Volts? Am- es?

How should a transformer be constructed to in- ase the voltage?

How should it be constructed to increase the am- age?

What effect has the voltage of a transformer upon amperage coming from it?

What is the ratio of voltage between the primary d secondary coils of a properly constructed trans- mer?

Why is a current coming from the secondary of a nsformer dangerous to handle?

What is a solenoid? A d'Arsonval solenoid? What its function?

What is a resonator? How constructed?

What is an oscillating current and how does it dif- from an alternating current? How is the modifi- ion brought about?

What is understood by a Tesla Current and how t produced?

What advantages has the Tesla current over other rents in medical work and what are its disadvan- es?

What is understood by an Oudin current and what antage, if any, has it over other currents?

What is understood by monopolar and bipolar ap- ations?

How do d'Arsonval, Tesla and Oudin currents dif- ?

Name some forms of spark gaps.

What are the requisites for an efficient spark gap?

Why does a spark gap get hot?

How are high-frequency currents applied to the body?

What is an electrode and what kind is preferred in high-frequency work?

Describe a vacuum electrode. A non-vacuum electrode and its advantages over a vacuum electrode.

What type of electrodes are used on mucous surfaces?

What are the contraindications for the dse of high-frequency electrodes on mucous surfaces?

What is the object of insulating a vacuum electrode?

What is a cataphoric electrode?

What phoretic effect has a high-frequency current?

What are the objections to the use of vacuum electrodes within the male urethra?

What are the physiological effects of a high-frequency current?

What are the contraindications for the use of a high-frequency current?

What precautions should be exercised in its use?

What preparation of the patient is necessary before applying high-frequency currents?

Does a vacuum tube emit ultra-violet rays? What is a violet ray?

How may the degree of vacuum of a tube be ascertained or estimated?

What are some of the indications for the use of vacuum electrodes?

When and for what purpose are metal electrodes used?

What is understood by auto-condensation? Describe it fully.

What are the physiological effects of auto-condensation? How is the strength of current estimated in auto-condensation treatments?

What amperage should be used and why?

What precautions should be observed in auto-condensation treatments?

What is understood by local auto-condensation and how applied?

What is auto-conduction and how applied? Its advantages and disadvantages compared with auto-condensation?

What is meant by medical diathermy? What are the physiological effects of diathermic currents?

What is the relative resistance offered by the different tissues of the body to the passage of high-frequency currents? How does the resistance differ from that of the continuous current?

What is understood by current density? What is its importance?

What precautions should be taken in the application of diathermy?

What is understood by surgical diathermy and how is it applied? What are the indications for its use?

What are its advantages over the knife? Its disadvantages?

Upon what does the dose of diathermy depend?

Mention some types of diathermy electrodes. What effect does diathermy have on the body temperature?

What is understood by fulguration and when and where is it employed?

What is meant by desiccation and when, where and how employed?

What are its physio-logical effects?

What is understood by electrocoaguluation? What are its effects? When and where is it indicated?

How do fulguration, desiccation and electro-coagulation differ in effects?

All the above questions, and many others, will be answered during "Physiotherapeutic Week in Kansas City," April 17-21. You are invited to attend.

* * * *

¶¶ The ship of prosperity is now sighted, be ready to get aboard.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald

and Electro-Therapist

Incorporating the

Kansas City Medical Index-Lancet

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Vol. LXI MARCH 15, 1922 No. 3

The Editors' Forum

Where Is the Medical Censor?

IT IS deplorable that medical editors will give space in their issues to antagonistic propaganda, which tends to confuse sound teaching and render more difficult a proper appreciation on the part of the public of the necessity of quarantine from contagious diseases.

In the February issue of "Clinical Medicine," a letter is published from one R. Willman, a regular physician, who claims to have practiced medicine twenty years, and had experience as assistant school physician for eight years. Speaking of diphtheria, he asserts:

"I shall not boast of the number that came into my hands; but I dare say that I have never lost a patient with diphtheria where I was the first physician in the case, and that I have never had a second case in the family or home unless the patient was already suffering with it when I entered the house for attendance on the first case.

"No matter how many people, young and old, lived in the house, I have never found a case that could be attributed to contagion.

"I have not found a thorough and impartial student of the disease who would consider diphtheria contagious, and who claims that it should be quarantined."

Such publications are not only short-sighted and untrue, but they cast a slur upon the work done by the American Medical Profession research centers and the government public health service. They engender a public disregard for quarantine laws. Such statements are food for the Christian Scientist, chiropractors and other cults which exist without any foundation of fact, experience, reason or knowledge. Such propaganda renders success in medical practice more difficult, and should not be passed unnoticed by any medical fraternity to which the perpetrator may be attached..

J. M. BELL.

* * * *

Rich, Revolutionary and Rampageous Is Johns Hopkins Hospital

THE attempt of this moneyed, endowed, trust-bolstered institution to come out and standardize fees for physicians throughout the country is the worst example of walking delegatism that a bossridden country has known in some time. The fees that this institution sets as the maximum for operations or medical attendance make a man shudder. Not at the size of the fee, but at the lamentable disregard of hindsight, foresight or any other sort of matured and comprehensive vision that has been called into play in the premise. Johns Hopkins hospital would restrict the fee charged for even the severest laparotomy to $1,000, or limit medical attendance charges to $35 per week. Very well—let us suppose that this same laparotomy, or possible medical service has been done for one of the many wealthy women of the country for whom it is nothing to pay from $500 to $1,500 for a single gown to a modiste, and that gown only one of dozens in a wardrobe. Step into any shop where wear for wealthy women is sold and question prices. To confine a woman in the country districts from $15 to $40 is the usual fee. Even now some women get along without a doctor. There are working girls by the hundreds of thousands throughout the United States today who wear to their daily toil shoes that cost from $10 to $25 per pair and silk hosiery that cost from $3 to $7 per pair and is shortlived at that. Again one is compelled to ask, "Why start on the physicians?" Surely if a human body is precious enough to be saved to wear a $1,000 evening gown and a $50,000 rope of pearls under a fur wrap that has taken from $2,000 to $15,000 to purchase to say nothing of the expensive lingerie beneath the gown, a doctor

who asks over a thousand dollars, operatively speaking or $35 weekly for medical attendance, to preserve that body for the wearing of this apparel is not the reprobate Johns Hopkins hospital would make him out to be. Consider, too, that the doctor who saves that body only gets the operating fee once in a life time or renders live-saving medical service at intervals. The modiste, the furrier and the jeweler "gets his" at least twice and sometimes four time a year. The modes change with the moments. Johns Hopkins has begun at the wrong end. Why not prohibit the admission to the Johns Hopkins hospital of any patient who brings a nightgown that cost more than a dollar, or who has her clothing scented with perfume that is priced at $8 per ounce, or has more than a six-cent rubber comb among her toilet articles, or dares fetch within the hospital portals a $75 boudoir cap or a $700 negligee. None of these is an unusual price for people of means—they are the rule, not the exception. It is safe to say that Johns Hopkins has operated on many a patient whose nightgowns alone, worn during the hospital sojourn, cost more than the fee the surgeon got, and that certainly could not be even approximately covered by a fee of $1,000. A maximum fee mind you—not a minimum fee. As for the medical fee of "$35" per week —the very suggestion is too ridiculous for comment.

No doctor wrangles with high prices when the high prices bring good to all. No doctor wrangles against low prices when the distribution is equal. But why in the world pick on medicine? Why charge the doctor $150 to $200 per month for a hole of a flat in which to rear his family and then begrudge him the honest earning of that $150 as the month rolls by?

Bad as is the proposed limitation by Johns Hopkins for the fee for surgical operations, worse yet is the suggestion emanating from the same fountain head that medical fees should be limited to $35 per week or $5 per visit. Look at the disparity between what Johns Hopkins thinks is right for the surgeon and what Johns Hopkins thinks is right for the medical man to charge for his services. Why the discrepancy? A medical man saves as many lives in a year as does a surgeon. Typhoid fever, smallpox, pneumonia, influenza, or a desperate case of poisoning can call for as much skill, and surely for more personal effort and attention than an operation for appendicitis.—Illinois Medical Journal.

* * *

Are you a regular subscriber to the Medical Herald? If not, why not?

Physio-Therapeutic Week in Kansas City, April 17-21

WESTERN ELECTRO-THERAPEUTIC ASSOCIATION

THE fourth annual meeting of this organization will be held, as usual, in the Little Theatre, Kansas City, April 20-21. Dr. Curran Pope, of Louisville, is the president this year, and will give the annual presidential address on Thursday evening.

The program is now being made up, and will be fully up to the standard of the previous meetings held by this organization, whose watchword is progress. A number of men of national reputation will be present; among those who have responded to the invitation to read papers may be mentioned: Drs. James T. Case, Battle Creek; A. J. Pacini, Washington; T. Howard Plank, Chicago; William L. Clark, Philadelphia; Harry Bowing, Mayo Clinic; A. D. Willmoth, Louisville; J. D. Gibson, Denver, and others. Dr. Virgil C. Kinney of New York, president of the American Electro-Therapeutic Association, and Surgeon-General Cumming of the U. S. Public Health Service, have given us a partial promise to be with us, and all indications point toward a large attendance.

The banquet will be held on Thursday evening, and a number of distinguished speakers will be on the program.

The exhibit hall will, as usual, contain the last word in equipment, and the exhibit alone will be worth a trip to Kansas City.

Dr. Grover's school of Electro-Therapy will hold its sessions, preceding our meeting on the 17, 18 and 19 of April, announcement of which will be found on another page of this issue.

CHARLES WOOD FASSETT,
Secretary.

* * * *

MEDICAL SOCIETY OF THE MISSOURI VALLEY

The annual meeting of this association will be held in St. Joseph, under the presidency of Dr. Paul E. Gardner, on September 21-22. The Buchanan County Medical Society at its last meeting appointed the following committee of arrangement: Dr. Floyd H. Spencer, chairman; Drs. H. W. Carle, Frank Hartigan, J. I. Byrne, H. S. Conrad, O. C. Gebhart, secretary. Members wishing to present papers should send in their titles to the secretary, Dr. Charles Wood Fassett, 115 East 31st Street, Kansas City, Mo.

Current Comment

Dietetics for the Traveler

IN these days of hospitalization, diet kitchens and hygenic supervision from infancy to old age, it is not to be surprised that the hotels are getting into line. The day may not be far off when the ambulatory, semi-invalid will be able to enjoy travel without carrying his bran bread with him, and sit at the hotel table to enjoy life and social intercourse with the world. This movement of a hotel dietitian, in readiness to supply any prescribed diet to its patrons, has been inaugurated by the Waldorf-Astoria of New York. The scheme is an ideal one; it will be a God-send to many a person who refrains from travel because of the impossibility of securing just what is needed in the way of diet. Again, the extensive culinary equipment of a large hotel will not only meet the demand but will enable those who need it to follow a diet even more liberal and varied than can be secured at home. The Scientific Diet Service of the Waldorf-Astoria is prepared to meet the utmost exactions of the doctor's orders in the way of diet. Physicians are invited to inspect the service. It is imminently fitting that this new and needful tangent should be undertaken by one of America's leading hotels.

The menus include:

1. High cellulose diet for constipation, atonic and intestinal toxemia.

2. High cellulose, low calory to reduce weight.

3. Low sugar and starch, high protein and cellulose for poor sugar tolerance.

4. Low cellulose, low condiments, for acute ulcer cases.

5. Low cellulose, high calory, high fat; a diet of simple, nutritious, non-irritating foods.

6. Low purin, for rheumatic and neurotic cases.

These lists are merely suggestive. Others may be ordered.

The hotel does not presume to treat the sick.

Manager Carruthers is to be commended and congratulated upon the innovation, which is meeting with gratifying success. J. M. B.

Following an investigation by the Public Health Service it has been determined from reports of 159 hospitals for the insane that 15 per cent of insanity is caused by syphilis.

Einhorn's Colon Tube

EINHORN has elongated his duodenal tube. His most recent advance consists of a series of additions to the tube, which are serially screwed on as the tube advances down through the stomach and duodenum. In one case reported the tube passed through the entire intestinal canal and protruded from the rectum. The advantage gained is the ability to treat topically any portion of the digestive canal. A case reported of long standing mucous colitis in which a colostomy was indicated, was completely relieved by through and through irrigation without surgical interference. The scheme is applicable to duodinal, gall bladder, pancreatic conditions, as well as direct application to hook worm, ameba, lamblia or any form of protozoa infection. The advance made by Einhorn is promising of great possibilities in gastroenterology.—J. M. B.

Dr. Donald Macrae, Jr., of Council Bluffs, has been appointed corps surgeon of the Seventh corps, organized reserves. This assignment makes Dr. Macrae chief surgeon of three reserve divisions—the Eighty-eighth, Eighty-ninth and One Hundred and Second. Included in these divisions are 60,000 men and 2,700 officers, to be recruited in the states of North Dakota, Minnesota, Iowa, South Dakota, Nebraska, Arkansas and Missouri. Dr. Macrae was a colonel, medical corps, in France, commanding Mobile hospital No. 1 (unit K). He was awarded the Croix de Guerre by the French government, and his unit also was decorated with the same honor for service at the front with American and French troops.

President Harding did not appoint an Army and Navy officer to act as his personal physician, but took his old family physician with him to Washington. The reason for this probably is that Dr. Sawyer is a Homeopath, in which school the President was doubtless reared, as his father and brother are Homeopathic physicians. In the Army and Navy there are none to appoint!

There is no such word as "surprised" in the lexicon of the doctor who has practiced medicine the last few years.

It must be awful to be too poor to need an operation.—St. Joseph Gazette.

Is this a cutting remark?

The hand is considered the distal part of the arm, the shoulder is at the proximal end of the arm.

Necrological



DR. JOSEPH MacDONALD, JR.

It is with profound sorrow the Medical Herald announces the death of Dr. Joseph MacDonald, managing editor and publisher of the "American Journal of Surgery" and co-publisher of "Medical Pickwick."

The doctor was a New Jersey boy—born in Branchville in 1870. He was graduated in Medicine, 1905. He has been for years the secretary, one term president, of the American Medical Editors' Association, and during these years its guiding spirit. He was a major in the Medical Reserve Corps during the war; later a member of the General Medical Board of Examiners. Five years ago the doctor was abed with a light stroke of paralysis, from which he recovered. On January 7th he suffered a cerebral hemorrhage which proved fatal in one hour.

Dr. MacDonald was a brilliant light in the galaxy of Medical journalists; genial, energetic, tactful, thorough, he worked unceasingly for the American Medical Editors' Association and was proud of its success.

He was not merely a scribe, an editor, but combined in himself that rare group of virtues, a brilliant mind, a facile pen, an optimistic outlook, keen executive ability, and a personal magnetism which drew men to him and held them. He will be missed by the men of medical letters, a host of admirers, and especially by the staff and followers of the American Journal of Surgery. Dr. MacDonald is survived by his wife, and a sister, Mrs. W. C. McKeeby, of Rochester, N. Y.

J. M. BELL.

JOE MacDONALD
An Appreciation

My acquaintance with Joe MacDonald began in 1894, at a meeting of the American Medical Association, and from that time we were close friends. I have never known a man with a heart so big, a heart that beat so true to his friends. His office in New York was a rendezvous for the journalistic guild, and in his presence you felt "at home," and were always sure to meet a firm grasp of the hand and a hearty welcome. He was never too busy to hear your troubles; and he was quick to extend comfort and advice. His optimism was contagious, and a few minutes spent in his office would convince you that the sun was sure to shine on the morrow, although it was dark and gloomy today.

These are the traits of character which make men great.

Joe MacDonald's outstanding faith in the brotherhood of man, and his ability to make his fellows happier, were the noble characteristics which implanted in our hearts a love for him which will live as long as memory endures.

Dr. MacDonald's life was an inspiration to all who knew him; his death a benediction and a hope for future blessedness.

To his devoted wife and loving sister we extend our profound sympathy in their bereavement.

CHARLES WOOD FASSETT.

HE PICKED IT UP WITH A MEDITATIVE THUMB AND FOREFINGER

One casts his eye on an ill defined object, picks it up and looks at it to recognize it. In this act the rods and cones of the retina receive a sensory impression from the object; the impression travels back to the optic nerve, through the optic chiasm, back to the optic tracts, beneath the external geniculate bodies, thence backward through the optic radiations of gratiolent to the cuneath gyus, thence through the association fibres to the gyus angularius and the gyus supramarginalis where the object is perceived but not apperceived—i. e., not recognized. An impulse then proceeds through the association pathways to the ideation centers in the lobus frontalis cerebri, thence by a new impulse it is sent to the motor cortex of the arm center at the base of the ascending frontal gyus just anterior to the fissure of Ralando. Here the cells of the Pukinje pick up the message and transmit it down through the upper motor neurons, to the anterior sells of the spinal cord. These motor cells, after receiving the message, in turn transmit it down through the peripheral motor nerves, i. e., the median and ulner nerves, to the opponens pollicis, the flexor brevis pollicis, adductor obliqous pollicis, adductor transversus pollicis, flexor profundis digitorum, and the flexor sublimis digitorum. Through the agency of these muscles, the object is grasped by the thumb and index finger. The impulse has now been transmitted through the motor route. Immediately a group of sensory impulses is called forth. From the tactile corpuscles of the finger tips the sensation passes through the sensory fibres of digital and the median nerve, thence through the posterior and lateral columns of the spinal cord and the medulla oblongata and the fillet, to the optic thalami; here the message is relayed through a set of sensory fibres to the superior parietal convolution; thence a set of associational fibres conveys the message to the frontal lobe where it is correlated with the visual image on the retina. And now for the first time the object is apperceived, or, as you say, recognized. By the very knowledge of these pathways and associated pathways, one is able to localize pathological processes such as cranial hemorrhage and tumors.—From a hospital bulletin board. Dr. Dudley is suspected.

Society Scintillations

KANSAS CITY ACADEMY OF MEDICINE

Dr. Allen B. Kanavel, of Chicago, was the guest of honor at the annual dinner given by the Academy of Medicine, at the Hillcrest Club house, the evening of February 10. Covers were laid for 300. Following the serving of a most excellent dinner, which was interrupted at frequent intervals by college songs and jazz music, led by Dr. E. H. Skinner, the guests finally became sufficiently composed to listen to Dr. Kanavel's splendid lecture on trigeminal neuralgia, illustrating by lantern slides the relative advantage of alcohol injections and surgery. The evening was a rare treat for those in attendance, and Dr. Kanavel was given a standing vote of appreciation for his enlightening discourse.

THE MISSOURI-KANSAS SECTION, AMERICAN COLLEGE OF SURGEONS

It was apparent to all who attended the meetings of the Missouri-Kansas Section of the American College of Surgeons, held in Kansas City, February 9th and 10th, that this organization is rapidly becoming a power in the medical, surgical and hospital activities of the western hemisphere. In its beginning the idea was merely to raise the standards of surgery, but this was found to be impossible without raising, simultaneously, the standard of medicine in general and that of hospitals. This has been done.

The attendance at the hospital conference was very gratifying and the general discussion entered into by the superintendents and others interested in hospital welfare shows that results are being attained.

The co-operation of the hospitals in arranging clinics contributed in no small measure to the success of the meeting and again illustrates the hospital's appreciation of the endeavors of the college.

At the scientific meeting held on the afternoon of February 10th, subjects of vital interest to the profession were clearly and forcibly discussed by Dr. George W. Crile of Cleveland, Dr. Allen B. Kanavel of Chicago, Dr. William M. Mills of Topeka and Dr. John L. Evans of Wichita.

The sessions were ably presided over by Dr. Daniel Morton of St. Joseph.

Dr. Franklin Martin, Director General of the college, spoke of what the college has done and its future purpose.

Special mention should also be made of the master-address given by the Rev. C. B. Moulinier, S. J., president of the Catholic Hospital Association, on "The Soul of Hospital Standardization." This had to do with the hospital in its altruistic sense and must of necessity contribute bales of moral fiber to the too numerous commercial institutions, sometimes called hospitals.

The absence of our beloved Binnie from the chair of presiding officer was profoundly felt. A telegram expressing regret, love and best wishes for a speedy return to health was sent to him.—Bulletin, Jackson County Medical Society.

NOTE—The Medical Herald's Kansas City office will supply any book reviewed in this department at publisher's price, prepaid. We can also supply any book by any publisher in the world. If an order for two books be sent at any one time, the purchaser will be entitled to a six months' subscription to the Herald. This plan is arranged for the convenience of our readers, and we trust it will stimulate trade in the direction of good books.—Editor.

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

A Treatise on Clinical Medicine.—By William Hanna Thompson, M. D., LL.D. Physician to Roosevelt Hospital; ex-President of the New York Academy of Medicine, etc. Second Edition, Revised. Philadelphia and London. W. B. Saunders Company, 1918.

An intensely practical work for those who deal with the sick. They key note of the volume is the condition of the living patient which demands exclusive attention. The first chapters are devoted to certain common but always important symptoms, a clear knowledge of which is necessary before considering the case at large. Chapters are devoted then to emaciation, cough, dyspnea, edema, vomiting. A chapter is devoted to remedies from a broad survey, medical, non-medical, vaccines and serum therapy. Then follows a section upon infections by living micro-organisms. The large section is upon diseases of particular organs and tissues. Throughout the book the aim of the author has been to serve the physician which actively engages in practice. The work is beautifully arranged, systematically and thoroughly presented. This second edition treats fully upon radium and x-ray diagnosis and therapy. A very commendable and complete work for the titioner.—J. M. B.

Urinary Analysis and Diagnosis by Microscopical and Chemical Examination.—By Louis Heitzmann, M.D., New York. Formerly Professor of Pathology and Bacterology Fordham University School of Medicine, Fordham, New York, N. Y. Fourth Revised and enlarged Edition with one hundred and thirty-one Illustrations, Mostly Original. New York, Wood & Company, 1921. Price, $4.00.

This edition is written upon the same general practical plan as preceding ones, with new chemical tests which have proved to be of value, some chapters enlarged and new up to date illustrations. The subject from all points of view is very thoroughly covered, chemical and microscopic. A very valuable asset is the 131 illustrations which excel in teaching a subject many times beautiful word pictures. Only those tests are given which can be used with advantage and without a complete chemical laboratory. It is therefore specially adapted to men who care to make their own urinalyses. Much space is given to analysis of urinary sediments, a subject necessary to the arrival at a proper diagnosis. The last chapter is devoted to the Determination of the Functional Efficiency of the Kidneys. It is written by Dr. Walter T. Dannreuther. The work is one of more than average value and is commended to every live practitioner.—J. M. B.

The Bridge Across; A Novel.—By L. Allen Harker. Published by Chas. Scribner's Sons, 597 Fifth Avenue, New York City. Price, $1.75.

This is a very interesting story of a brave, daring and clever young woman, who grew up out of a charming tomboy. It tells in a very human way the experiences of the men who wanted to marry the girl, and of Captain Chumleigh Gray who finally won the prize. The reader's sympathy and admiration are won by the heroine's clever interviews with a profligate father, and by the character which she develops. Altogether, it is one of the most sincere and worth-while books of the month.

A PHYSIOTHERAPEUTIC WEEK IN KANSAS CITY

At the Little Theater, April 17, 18, 19, 20, 21, 1922

WESTERN SCHOOL OF ELECTROTHERAPY

Fourth Session, April 17, 18, 19, 1922

INSTRUCTORS

Dr. B. B. Grover, Colorado Springs; Dr. Frederick H. Morse, Boston; Dr. T. Howard Plank, Chicago; Dr. A. J. Pacini, Washington; Dr. J. D. Gibson, Denver.

Classes are now being formed. Number limited to those who register in advance.

Western Electrotherapeutic Association, Fourth Annual Meeting, April 20, 21

Banquet on Thursday evening. Speakers: Dr. Curran Pope (president), Dr. Jas. T. Case, Battle Creek, Mich.; Dr. H. H. Bowing, Mayo Clinic; Dr. A. D. Willimoth, Louisville, and others. The profession cordially invited to attend.

Send for programs and registration blank. Chas. Wood Fassett, M.D., Secretary, Kansas City, Mo.

PRELIMINARY ANNOUNCEMENT

THE WESTERN SCHOOL OF ELECTROTHERAPY will hold its Fourth Annual Session at the Little Theater, Kansas City, April 17, 18, 19, 1922. Each previous session of the school has been an unqualified success in the dissemination of information in the use of physical modalities in medicine, and this year promises to be better than ever.

Dr. Grover will lecture on the fundamentals of electricity each morning at 10 o'clock. Every day from 2 to 5 o'clock will be devoted to clinical demonstrations. Diseases and conditions amenable to physiotherapy will be briefly described in which the physiological indications for the use of the different modalities and how and when to apply them will be fully explained. Demonstrations will be made on actual cases in so far as clinical material is available. In absence of material each step of treatment technic will be fully explained with demonstration of apparatus.

During the Clinical Sessions time will be given for brief discussion of each demonstration.

Dr. A. J. Pacini, formerly in charge of the X-ray Department of the United States Public Health Service, will be present during the week and lecture on the uses of actinic rays in medicine. He will hold clinics for the demonstration of this important modality in many diseased conditions.

Dr. Frederick H. Morse, ex-president of the American Electrotherapeutic Association and well known authority in direct and sinusoidal currents, will be with us again this year and give clinical demonstrations of these conditions.

Dr. T. Howard Plank, one of the prominent workers in the American Electrotherapeutic Association and a recognized authority on actinic rays, will be with us again this year and give clinical demonstrations of high-frequency currents in surgery.

The Exhibit Hall will contain the latest equipment and will be well worth a trip to Kansas City.

Program will be ready about March 15.

For program and information, address Dr. Chas. Wood Fassett, 115 East Thirty-first St., Kansas City, Mo.

CHANGE OF DATE—MISSOURI MEDICAL ASSOCIATION

The executive committee has decided to change the place of meeting from Excelsior Springs to Jefferson City, and the dates will be May 9, 10 and 11.

* * * *

The American Congress on Internal Medicine will hold its annual clinical week at Rochester and Minneapolis, April 3 to 8. The Chicago Great Western Railroad will run a special to Rochester, leaving Kansas City, Sunday, April 2, 2:30 p. m. Pullman reservations should be made early.

* * * *

The American Medical Association will meet in St. Louis, May 22-26. Room reservations should be made without delay.

❖ ❖ ❖

The Nebraska Medical Society will meet in Omaha, April 24-27.

The Iowa Medical Society will meet in Des Moines, May 10-12.

The Illinois Medical Society will meet in Chicago, May 16-18.

The Kansas Medical Society will meet in Topeka, May 3-4.

The Oklahoma Medical Society will meet in Oklahoma City, May 16-18.

Medical Melange

DEATH RATE DECLINES

Miss Jessamine Whitney, who is in charge of the research work of the National Tuberculosis Association, has compiled statistics showing the death rate from tuberculosis in the various states. The illinois rate per 100,000 is given as follows: 1917 rate, 128.7; 1918 rate, 134.1; 1917 rate, 114.2; 1920 rate, 100.6. This shows a declining death rate for the state.

CLEOPATRA A PHARMACIST?

Cleopatra, Artemisia and Agnodice had a knowledge of drugs, were amateur pharmacists. So announced Miss Adelaide Rudolph of the New York College of Pharmacy to the women's section of the American Pharmaceutical Association, which met recently in the Hotel Pennsylvania.

Miss Rudolph urged pharmacy as an ideal work for women, being light, clean and healthful, and she declared that young women should be encouraged to study pharmacy.

Citing precedents, she said Cleopatra left a treatise on the maladies of women. But Miss Rudolph did not state whether the treatise prescribed an antidote for the poison of an asp or told how to mix a love potion. Miss Rudolph said Artemisia, Queen of Caria, cultivated medicine.

As for Agnodice, she was an Athenian maiden who dressed herself in men's clothes, studied medicine under the tuition of Herophilus, M.D., and practiced with much success.—New York World.

A NEW LOCAL ANESTHETIC

From time to time new anesthetics to take the place of cocaine have been proposed, and to some extent used, but without utterly supplanting the older and rather dangerous drug. Now, however, the surgeon has a substitute that is a decided improvement. The new local anesthetic is called Butyn (pronounced **Bute-in,** with the accent on the first syllable.) It is the discovery of Professors Roger Adams and Oliver Kamm of the University of Illinois and Dr. E. H. Volwiler of the Abbott Laboratories, Chicago.

The anesthetic has been passed by the Council on Pharmacy and Chemistry of the American Medical Association. In his report, Dr. A. E. Bulson, Jr., for the Committee on Local Anesthesia, Section of Ophthalmology, said that it acts more rapidly than cocaine and its action is more prolonged. Less is required, and in the quantity necessary it is less toxic than cocaine. It has other advantages which make it highly useful, especially for eye work. A solution can be boiled without impairing its efficiency.

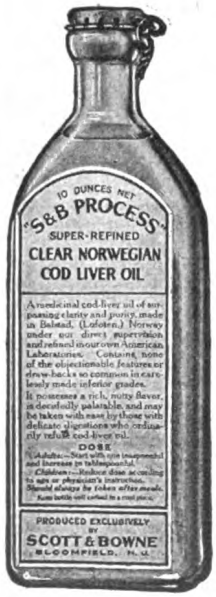
The Abbott Laboratories are supplying Butyn in tablets (with and without Epinephrin) and 2 per cent solutions, which may be had without narcotic blanks.

Chymogen—Milk is the universal food. In some cases it is hard to handle because the acid stomach forms indigestible clots. This curdling may be overcome without altering the value of the milk. In chymogenized milk the casein is precipitated in flocculent particles. In this form the casein is easily digested. Where the whole milk is wanted, boil, let cool to 105 degrees f. and add Chymogen. If whey is wanted heat the milk to 105 degrees f., add Chymogen. When the curd is set, cut, drain off whey and use. Chymogen is from the Armour Laboratories.

100% True Gadus Morrhuae

There are many grades but only one best. The therapeutic efficiency of cod-liver oil depends largely upon its purity and palatability—its freedom from admixture with inferior, carelessly made oils.

Cod-liver oil must be made right from the start and kept right to assure maximum efficiency.



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Clear Norwegian (Lofoten) Cod-liver Oil

is made right and stays right. It is the culmination of half a century of purpose to excel. It is guaranteed 100% pure oil of true *Lofoten Gadus Morrhuae.*

It is the efficient oil for the efficient physician.

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Liberal samples will be sent to any physician upon request.

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Makers of Scott's Emulsion.

21-3a

LATE, REFRACTORY SYPHILITIC LESIONS

In many instances it will be found that some late syphilitic lesions take on an indolent character and make no response to energetic treatment by means of mercury or the arsenicals. The reason probably is to be found in a rundown, reduced state of the tissues, as a result of which the stimulating, specific action of mercurial and arsenical treatment on the tissues is not exerted. It is in such cases that a preliminary course of treatment with a carefully compounded and well balanced Iodine preparation is of high value. For these cases of indolent lesions Iodia (Battle) is of definite usefulness. It exerts an alternative reconstructive effect on the tissues and put them in better condition later to respond to a more active treatment with either mercury or the arsenicals. It is the general opinion among experienced syphilogists that iodine has a distinct field of usefulness in syphilis, especially in the later period of the infection, and that its employment should not be overlooked. For the purpose Iodia (Battle) will serve to advantage.

THE SEXUAL NEUROSES

In connection with the local and general treatment of the sexual neuroses of males, it has been the experience of many genito-urinary surgeons that sedatives are of distinct advantage. Their use secures for the patient more rest at night and puts the nervous system in a state of tranquility, enabling the more specific treatment to exert a better effect. Among the sedatives employed for this purpose Pasadyne (Daniel) has given marked satisfaction. Not only does it possess definite sedative powers, but it has the added advantage in being free from depressing influences and does not subject the patient to the possibility of habit-formation. Pasadyne (Daniel) is merely a concentrated tincture of passiflora incarnata. It will be found of use in all conditions demanding sedation. A sample bottle may be had by addressing the labortory of John D. Daniel, Inc., Atlanta, Ga.

BEFORE AND AFTER SURGICAL OPERATIONS

The great and far-reaching importance of free purgation, both before and after surgical operations involving the abdomen, is generally recognized. Sal Carabana is ideal for such purposes and it is winning popularity among surgeons as its advantages become known. Its value as an intestinal antiseptic and the consequent notable reduction of intestinal fermentation and putrifaction that follows its use, commend it as a most dependable means of preventing tympanites and disagreeable post-operative intestinal complications.

Diamond Antiseptic Soap, introduced not long ago by Eli Lilly and Company, contains mercuric iodide and is said to be particularly well adapted for use wherever a disinfectant and cleansing agent is desired, as in disinfecting the hands and surgical instrumets and in cleansing wounds. It is reported that many physicians are securing excellent results from its use in treating certain parasitic or infectious skin diseases. It is said to be useful in shampooing the hair, for the eradication of dandruff, and also as a toilet soap for general use.

Unlike most germicidal agents, Diamond Antiseptic Soap has a pleasant odor. It produces a copious lather in hot, cold, hard or soft water. It is non-irritating, yet a fine detergent.

Every physician has use for such a product as Diamond Antiseptic Soap. Eli Lilly & Company will be glad to send a sample on request made to the Home Office of the Company at Indianapolis.

The Management of an Infant's Diet

Infants' Stools

Regularity in bowel movements contributes much toward normal, healthful progress, and a knowledge of the number and character of the stools during each twenty-four hours is an important part of the general management of early life and assists much in properly adjusting the diet.

Suggestions for the regulation of infants' stools by slight changes in the make-up of the diet and particularly in relation to

Constipated Movements

are given in our book, "Formulas for Infant Feeding," and in a pamphlet devoted especially to this subject. This literature will be sent to physicians who are interested in the matter.

Mellin's Food Company, Boston, Mass.

SCHERING'S FIFTY YEAR JUBILEE

Recently there has been received in this country a souvenir volume commemorating the founding of the Chemische Fabrik auf Actien (vorm. E. Schering) of Berlin, on October 23rd, 1871.

This book, besides being a remarkable specimen of the modern printers' and book-binders' art, recites the wonderful development of this world-wide manufacturing concern from its humble early beginnings, as the still flourishing Berlin Pharmacy "Gruene Apotheke," to its present heights.

It will be remembered that this company is the original creator of such milestones in the progress of therapeutics as Chloralhydrate, Formalin, Urotropin, Beta-Eucaine, Medinal, Tonols (Glycerophosphates of highest purity), Trikresol, Atophan and many other universally known products, introduced to the medical profession and the drug trade of the United States by Schering & Glatz, Inc. The leading synthetic specialties have been manufactured by the latter in the United States for several years. The fifty-year jubilee of the Schering works is thus of such interest to physicians that it should not pass without suitable mention in these pages.

Congratulations and evidences of friendship were received by the Chemische Fabrik auf Actien (vorm. E. Schering) from all parts of the world, and we have no doubt that the best wishes of the medical profession of the United States are with this stalwart pioneer concern.

In Urinary and Kidney Troubles—I have been using Sanmetto in urinary and kidney troubles for more than thirty years and I have uniformly been pleased with the results. It has never failed to be of great help in correcting these troubles.

DON'T FORGET
PHYSIOTHERAPEUTIC WEEK
April 17-21, 1922

CROSS THE CONTINENT
KANSAS CITY
THE HEART OF AMERICA

Be a "Live Wire"

ARE YOU CONSIDERED UP-TO-DATE IN YOUR COMMUNITY?

DO YOU PRACTICE ELECTROTHERAPY?

Are You in Need of New Equipment?

IF SO,

Be sure to attend the meeting of the Western Electrotherapeutic Ass'n at the Little Theatre, April 17-21.

SHOULD YOU NEED FURTHER INFORMATION, WRITE TO THE EDITOR

A NEW MERCURIAL

We have long needed a satisfactory mercurial hypodermic administration; and of all hypoder methods, the intravenous in obviously the best. phenamine is thus administered; but arsphenar without mercury will usually fail to eliminate spirochete of syphilis. Mercurosal (Parke, Davi Co.), is a new mercurial, one that is said to have blandest possible effects upon the vein when ministered intravenously, but a powerful effect u the spirochete. It is the counterpart of arsphenan the two together constituting effective medicatio syphilis. Parke, Davis & Co. have a new piec literature on Mercurosal—excerpts from recently lished clinical papers. Send them a card asking "Mercurosal as an Antiluetic."

The Complete Absorption of Iodine.—Never there a time when medical men were so well a of the value of iodine in the treatment of a v variety of diseases. The form in which iodine is ministered is all-important because so much dep on its absorption. Recognizing this, it is not ficult to understand the preference so many sicians give to Burnham's Soluble Iodine, for have learned from experience that its use insures c plete absorption of all the iodine content. Being iodine in a free state, it can therefore be used in required dosage on an empty stomach or by h dermic injection. For these reasons, its potenc unequaled in the treatment of all infectious dise as well as in all other conditions where the the of iodine may be indicated.

Meet me in Kansas City, Physiotherapeutic w April 17-21. Write for program.

GOOD THINGS TO COME

Following is a partial list of original papers tc pear in the Medical Herald:

"Shall We Operate on One Sided Senile Catar Dr. H. Gifford, Omaha.

"Fermentative Colitis," Dr. A. Sachs, Profess Medicine, Creighton Medical College, Omaha.

'The Diagnosis of Gallstones," Dr. H. J. Lel Lincoln, Nebr.

"The Wassermann Test in the Diagnosis, T ment and Prognosis of Syphilis—A Plea for a Conservative Interpretation," Dr. James J. Si Lincoln, Nebr.

"Observations on the Treatment of Fractures," Francis R. Holbrook, Des Moines, Iowa.

"The Cause and Prevention of Joint Stiffness Fractures," Dr. H. Winnett Orr, Lincoln, Neb.

"Gastric Surgery Simplified by Jejunostomy," K. S. J. Hohlen, Lincoln, Nebr.

"Carcinoma of the Breast—With a Report Rare Case of Mastitis Carcinosa," Dr. Micha Ford, Omaha.

"The Preservation of Function in Joints after tures," Dr. John Prentiss Lord, Omaha, Neb.

"Local Anesthesia in Gall Bladder Surgery. Caryl Potter, St. Joseph, Mo.

"Jejunostomy; Technique and Indications fc Operation," Dr. A. J. McKinnon, Lincoln, Ne

"The Control of Gonorrhoea in Women," Dr mer Findley, Omaha, Neb.

"Bacterial Relationship to Stone Formation, O. C. Morrison, Carroll, Iowa.

"Carcinoma of the Lung," Dr. E. A. Gumm Joseph, Mo.

STUFFED CAPSULES

It may be well to wake up to the fact that physical asures are often better than physic.

The magnetic field of focal infection is wide and werful.

Electro-physiology and electro-pathology are em settings" in a medical education.

A "fleeting professional fad" of yesterday may be- me a science tomorrow.

Radium, X-ray and high-frequency currents are eful measures in the treatment of skin cancer when ployed by skilled hands, but are "buzzsaws" in the nds of tyros.

BURTON B. GROVER.

* * * *

The Importance of Borderline Cases of Endocrine isorders.—Those who are giving thought and at- tion to derangements of the internal secretory or- ns will agree with Harrower (Med. Record, Jan. , 1922), that it is a mistaken idea or impression to pect that the great bulk of these gland disorders e made up of decided, clear-cut, text-book endocrine seases. The error is readily apparent to those who op to think of the tremendous influence that the ctless glands play upon every reaction of the body disease as well as the regulation of physiologic nctions which maintain health.

The borderline endocrine disorders are far the more merous. The necessarily must include certain as- cts of all of the acute infectious diseases, because e endocrine glands unquestionably are influenced the conditions present in these diseases, and their due stimulation causes functional disorder in the rmal activities of these organs. The thyroid gland expected to react to infections and toxemia, for the yroid has been shown to be a very important factor in the "immunizing response of the body," and is known to be equally concerned in what is known as "the detoxicating mechanism." In other words, whenever there is an acute infectious disease, consideration should be given to a possible thyroid aspect, and especially to the possible indirect influence upon the organism, either during the disease or following it, through a presumed derangement in the thyroid functioning.

There is also an equally important adrenal aspect to all such diseases because the adrenal glands, serving as they do to initiate the cardiovascular and sympathetic response of the body to infections and toxemias, necessarily must be stimulated by the toxic products of the infection or infectious disease. If the adrenal glands were not thus affected the body would speedily be overcome by the poisoning, but since the adrenals are immediately and subtly concerned in all of these syndromes, we find increased circulation, increased sympathetic tonicity, increased chemistry, and a general increase in the defensive activities of the body. Naturally, if the toxemia is a very serious one or, even more important, if it is not so serious but is prolonged over a long period of time, this constant stimulation of these glands doubtless will wear them out at least functionally, and as a result of the overstimulation we have depletion.

Toxemias of other origin, including alimentary toxemia, the ingestion of toxin-containing foods (including coffee, easily putrefiable animal foods, and especially certain protein-bearing foods to which some individuals occasionally show an unusual susceptibility) exert an identical effect upon the endocrine glands, especially the thyroid and adrenals, as we expect to find from other forms of poisoning. Consequently, the frequency of endocrine dysfunction of the type under discussion is extended very materially indeed.

KANSAS CITY
DIAGNOSTIC AND
THERAPEUTIC
CLINIC

The Kansas City Diagnostic and Therapeutic Clinic has been established with the object of furnishing under one roof as complete an Institution as medical science of today demands. It is equipped with the most modern apparatus for diagnosis and treatment and manned by a competent staff of specialists in their respective departments.

THE DEPARTMENT OF PHYSICAL DIAGNOSIS is under the direct supervision of Dr. I. J. Wolf, Professor of Medicine in the University of Kansas, formerly Professor of Medicine in the University Medical College.

CLINICAL LABORATORY is fully and adequately equipped so that all forms of examination that may be demanded, including urinalysis, gastric analysis, blood, blood chemistry, C 02 Alveolar tension, Wasserman Test, and the various bacteriological examinations can be promptly and accurately made. Dr. S. H. Richman, former pathologist of the Cook County Institutions, is in charge of this department.

We invite the co-operation of the profession and wish to assure it the fullest assistance in whatever capacity we may be of service. All cases referred to this clinic for examination are returned to their respective physicians with a full report of the findings and such recommendations as seem pertinent.

The laboratories endeavor to give accurate and prompt service whether it be in a simple urinalysis, a Wasserman, Metabolism rates Electro-cardiography.

THE THERAPEUTIC DEPARTMENT

This clinic has established a physio-therapeutic department, fully equipped, and offers to the profession such measures as may be found necessary to increase elimination, improve local and general circulation, produce hyperemia, sedation, stimulation and general tonic effects.

This institution is to be conducted along strictly ethical lines and solely for the benefit of the medical profession as an aid in the diagnosis and treatment of diseased conditions.

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KANSAS CITY, MISSOURI

I. J. WOLF, M. D., Director
S. H. RICHMAN, M. D., Associate Director

Phone Linwood 2462

Notes By The Wayside

THE CHILD AND THE COMMUNITY

"Every child delinquent in body, education or character is a charge upon the community. The nation as a whole has the obligation of such measures toward its children as a whole as will yield to them an equal opportunity at their start in life. If we could grapple with the whole child situation for one generation, our public health, our economic efficiency, the moral character, sanity and stability of our people would advance three generations in one."—Herbert Hoover.

ADENOIDS

As adenoids form very near the sensitive ear tubes, they frequently cause deafness sufficient to interfere with the child's daily work at school, says the Maine Department of Health. Frequent attacks of earaches, following slight colds, are almost the first signs of adenoids. There is absolutely nothing good to be said about these trouble makers and they should always be removed.

TREATMENT BY LIGHT AND HEAT

The Editor of the Therapeutic Gazette (Nov. 15, 1921) calls attention to the beneficial effects of light and heat upon a variety of pathological conditions. These therapeutic agencies have most conclusively proven their value in the treatment of chronic infections, and particularly those incident to the tubercle bacilli. Heliotherapy, applied locally, has produced results which have even made the aggressive surgeon lay aside his knife. There is in this treatment a strong psychic element, but in addition to this, light and heat produce vascular changes which are important factors in restoration to normal. The successful use of the finger light in curing lupus and the value of sunbaths in tuberculosis are attested by thousands of cases. One of America's most distinguished surgeons, who had suffered anguish from an infected arm, was relieved of his pain in a few minutes by heat and light applied through an electric lamp, and remains, to this day, a firm believer in the efficiency of the method.

CIRCUMCISION PREVENTS SYPHILIS

A. Irvine (Virginia Med. Monthly, July, 1921) calls attention to the well-known fact that syphilis, as a rule, comes from infection through an abrasion on the foreskin. If the latter is removed by circumcision the parts become tough like the skin and are abraded very seldom—in not over five per cent. Nation-wide circumcision would in a few years stamp out practically all the acquired syphilis in men and women and inherited syphilis in infants, as the women take it from the men and the men from the women, but preventing it in one sex would prevent it in the other. Prevention of the abrasion on the penis is the keystone to the arch in the prevention of syphilis, and the simple surgical operation of circumcision does it.

A PERTINENT QUESTION

There is a tendency on the part of many progressive physicians to ask the pertinent question: "Is it after all, wise to discard entirely certain time-proven, therapeutic remedies which have demonstrated their worth through many years of actual use?" Put in a slightly different way, it might be asked: "Does the general practitioner of the present day obtain better results for his patients than did the doctor several generations ago?"

There are certain combinations of well-know drugs which seem to have held their own in spi of the tendency on the part of many of the professic to adopt a threapeutic nihilistic attitude. Take, f example, Micajah's Wafers.

Many years a busy country physician, who had make his rounds on horseback and carry his dru with him in well-worn saddle bags, conceived t idea of a combination of astringent, styptic, ant phlogistic, soothing and healing drugs, and aft considerable experimentation, evolved a combinatio that he found to be both practical and satisfactor Years passed. In the natural course of events h fellow-practitioners came to learn of this combin tion and to use it. Eventually and following the n tural tendency, an attempt was made to place th combination at the disposal of the medical professio at large. The enterprise began in a small way, b proved immediately successful and the combinatio was put out under the name of Micajah's Medicate Wafers, and has steadily grown in use, until at th present time it is employed by many thousands practical physicians all over the country.

Distinctly repudiating any intention or desire to e ploit this product as a cure-all, its makers call a tention to the demonstrated efficiency of it in man kinds of irritation or inflammation of mucous mem branes, especially of the genito-urinary tract. might be said that Micajah's Wafers can speak f themselves, meaning that it requires only a clinic test to demonstrate their efficiency. This preparatio is consistently and ethically advertised and sample together with interesting literature regarding th preparation, will be sent gratis to any physician wh may request same of the makers, Micajah & Com pany, Warren, Pa.

Atophan has been manufactured for quite som time past in the manufacturing plant of Schering Glatz, Inc., at Bloomfield, N. J. The product made by a special process, which entirely eliminat the possibility of unpleasant empyreumatic admi tures, and thus still further improves this standar synthetic in the treatment of rheumatism, gout, ne ralgia, neuritis, sciatica, migraine and "retention headaches. Schering & Glatz, Inc., 150-152 Maide Lane, New York City, will be glad to send a tri box of Atophan Tablets to any physician requestin it on his letterhead.

In Acne DERMATONE Does ZEMATOL Does in Eczema

Use Them and Prove Them

Backed by 25 years of successful clinical experience.

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and Electro-Therapist

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and
The Kansas City Medical Index-Lancet



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MEDICINE — SURGERY — PHYSIOTHERAPY — X-RAY

SEE IT AT KANSAS CITY MEETING-APRIL 17 TO 2

Let this wonderful outfit prove its worth in your office—FREE!

Here is a startling offer!

Confident of your delight in the way this equipment will increase your prestige and income almost at once, we are willing to let you try it in your own office with no obligation other than to return it at the end of ten days if you are not absolutely satisfied.

The High Frequency Currents delivered are indicated in hundreds of conditions that come to you from day to day.

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is a compact, practical and very efficient electro-therapeutic outfit and in general use in U. S. Reconstruction Hospitals.

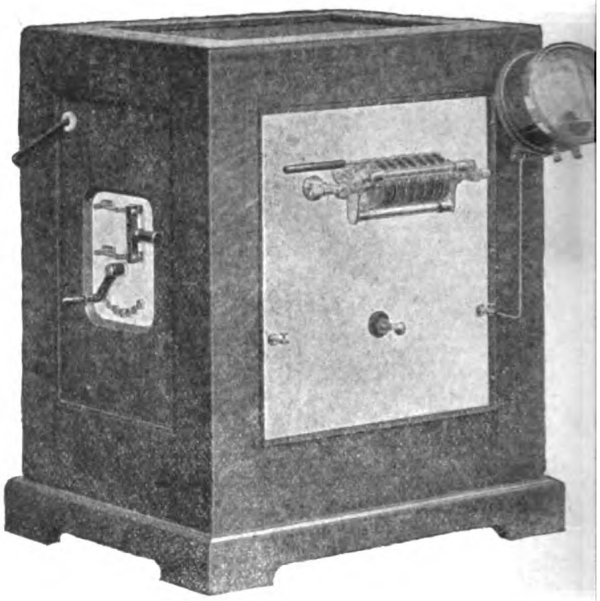
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Mail the coupon to the right. Immediately a "Military Model" will go forward to you. Try it in your office for ten days. Use it as much as you like. Note particularly the wonderful chances you have to increase your income. Then, if you are not absolutely satisfied, simply return it to us—and no harm done. If you like it, send one-fourth of the purchase price and the balance in twelve easy payments—and the outfit is yours!

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Entered at the Kansas City postoffice as second class matter

Continuing the Medical Fortnightly and Laboratory News

The Medical Herald
and Electro-Therapist
Incorporating
The Kansas City Medical Index-Lancet
An Independent Monthly Magazine

Vol. XLI APRIL, 1922 No. 4

Original Contributions

[EXCLUSIVELY FOR THE MEDICAL HERALD.]

JEJUNOSTOMY; TECHNIQUE AND INDICATIONS FOR THE OPERATION

A. I. McKINNON, M.D., F.A.S.C., Lincoln, Neb.

A SUMMARY of the treatment of obstruction of the bowels as outlined in a new edition of a standard Operative Surgery published in 1921 is as follows:

General anesthetic, open the abdomen; find the point of the obstruction; relieve the obstruction. If the intestines are very much distended and paretic, pull out loops in succession, incise, milk out contents, suture and replace. This is carried on until most of the distension has been relieved.

"If the patient is very much collapsed and it is difficult to find and treat the cause of the obstruction, the surgeon should throw away all ambition to do a complete operation, and content himself with bringing the most distended coil of intestines into the abdominal wound and fixing and opening it there (enterostomy)."

To my mind, the teaching of such primitive methods for the average case of obstruction is pernicious. For the average case of obstruction does not come in the surgeon's hands before distension and vomiting have set in, which means the patient is moribund or fast becoming so, and hence not in a condition to withstand much surgery, especially surgery under a general anesthetic, such as ether or chloroform. It is beyond question that general anesthesia contributes greatly to the mortality of intestinal obstruction. I believe that in no field of surgery are the objections to ether and chloroform anesthesia so great as in that of intestinal obstruction. These drugs not only act as additional poisons to a system already overburdened with toxins absorbed from the intestinal canal, but also paralyze peristalisis, and thus defeat the purpose of the operation, which is to re-establish peristalsis in order to empty the gut.

All of these objections I sought to overcome by an operation known as jejunostomy, and performed under local infiltration anesthesia. That I have succeeded in doing this, my results in a large series of cases during the past six years prove to my entire satisfaction.

The operation is performed as follows:

Technic

The use of local anesthesia is imperative for obvious reasons. (It does not inhibit peristalsis nor add to the patient's toxic condition.) A short incision is made through the upper left rectus muscle, beginning at the margin of the ribs. Next, the upper end of the jejunum is located. This is the vital, likewise the most difficult part of the operation. The ungloved index finger is introduced and the bifurcation of the abdominal sorta is located. Normally, the jejunum is within an inch above it, to the left. It may be pushed up several inches. The right side of the root of the mesentery is found and at the upper border, sweeping the finger from the aorta to the left, the beginning of the jejunum will be found. A pair of intestinal forceps is introduced and a loop of the bowel is delivered. It is necessary to use an ungloved finger to do this—better to sacrifice technic than a patient.

Next a purse-string suture of silk is inserted, the bowel is opened, a drainage tube is inserted two or three inches, with the point away from the stomach. A retaining suture is put in and the purse-string suture is tied. Another purse-string of silk is inserted three-fourths of an inch from the tube, invaginated and tied, then the bowel is returned to the abdominal cavity. The bowel **should not** be sutured to the abdominal wall.

Intestinal distension is the result of disordered peristalsis and gas formation. To

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relieve this distension peristalsis must be effective, i. e., must dispose of intestinal contents through an opening in the gut. In the case of an obstruction the intestinal contents are pushed back and forth between the obstruction at one end and a closed pylorus at the other. This goes on until the obstruction is relieved or the pylorus gives away to nervous and mechanic influences, and partial relief is brought about by vomiting. This might be all that is necessary to keep the patient alive, if the vomiting response were prompt and effectual enough to relieve the distension and at the same time give the patient time to take nourishment, which, evidently, is not the case. In an obstruction at this late stage a jejunostomy fulfills both of these requirements, relieving the distension and allowing the intake of nourishment for a time, giving the patient a chance to recover from the effects of the obstruction sufficiently to undergo a major operation for the relief of the cause of the obstruction. For a jejunostomy allows effectual emptying of the entire gut by reverse peristalsis, and after the relief of the distension the patient can be fed either by mouth or through the tubes in the jejunum. The prime requisites of a successful jejunostomy are that the operation be done with a local anesthetic, and be done before the patient has progressed to a condition where peristalsis has been abolished by paresis of the entire small intestine.

In obstruction of the bowels from volvulus, the jejunostomy is the ideal method, as it cures the patient without further operative measures.

In mechanical obstruction it is a temporary expedient to get the patient in condition for curative surgery later.

Another common acute abdominal condition which has a mortality rate excessively high for Modern Surgery, is acute general suppurative peritonitis. In this disease, when the patient is seen late and there is marked distension of the abdominal contents, and embarassed cardiac and respiratory action, I have performed jejunostomy under local anesthesia (pus would flow out of incision in upper left rectus, showing diffuse general suppurative peritonitis). Also make small incision (local anesthesia) above Poupart's ligament and introduce tube into pelvis. Patients make an immediate recovery. Truly a minimum amount of surgery with maximum result.

Complemental jejunostomy at completion of stomach operations, resections of bowels and bad gallbladder cases, and even umbilical hernia in fleshy patients—does away with the possibility of post-operative ileus. It eliminates gas pains and may be used to introduce liquids and nourishment until stomach recovers from effect of ether. I can commend this method most highly to not only reduce mortality, but also to increase the patient's comfort while convalescing from the operation.

In conclusion I wish to emphasize the following points.

1. Ether is absolutely contra indicated in acute abdominal conditions with extreme distension on account of inhibiting peristalsis.
2. Local anesthesia does not stop peristalsis and is the only anesthetic permissable in these cases.
3. High jejunostomy is the correct location for drainage of entire canal.

GASTRIC SURGERY SIMPLIFIED BY JEJUNOSTOMY

K. S. J. HOHLEN, M.D., F.A.S.C., Lincoln, Neb.

BEING a surgeon of just ordinary ability my endeavor has been toward those procedures that are most simple and yet give maximum results. My experience with gastro-enterostomy has not been as satisfactory as one might expect. Partially, probably, due to my inability to select the proper cases for the procedure and partially to results over which I had no control. In the perusal of literature of the last few years, one sees the outcropping of dissatisfaction in the treatment of gastric ulcer by gastro-enterostomy. Up to the present time, we really have no standardized treatment for gastric ulcer. Every surgeon seems to have a method of his own. In this paper my remarks are more especially referred to the chronic gastric ulcer but may also be applied to the acute or perforating type of ulcers.

Sir Moynihan (1) in a very exhaustive article classifies the Surgical Treatment of Gastric Ulcers into the following procedures:

1. Gastro-enterostomy.
2. Excision.
3. Gastro-enterostomy combined with excision by knife or cautery.
4. Gastro-enterostomy combined with jejunostomy.
5. Resection of a part of the body or the stomach. "Sleeve resection."
6. Partial gastrectomy.

This classification, it seems to me, covers the field for the treatment of gastric ulcer. His choice of operation wherever possible is partial gastrectomy. Deaver (2) in a late article states, "It is my practice whenever possible to excise ulcer with knife or cautery." To this he adds a posterior gastro-enteros-

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tomy in all those cases that present a marked hyperacidity before operation.

I believe that those operations where excision is not practiced, that is some form of gastro-enterostomy, present many objections. These objections may be stated as follows:

1. Mechanically and physiologically incorrect.
2. The theory of alkalinization a mooted question.
3. Leaves the diseased tissue.
4. Leads to complications such as ulceration at suture line, suture hanging into stomach, jejunal ulcers, hemorrhage and perforation.
5. Ulcers high up in cardiac end and posterior wall are not benefited.
6. Habit.

To consider these objections a little more fully:

1. "Mechanically and physiologically incorrect." It has been frequently demonstrated by the X-ray, as we all know, that in the presence of a gastro-enterostomy opening, where the pylorus has not been occluded, the food will nevertheless pass through the pylorus and probably partially back into the stomach through the stoma. Burton-Opitz in his text book on physiology (3) in discussing gastro-enterostomy states as follows: "Physiologically, it is of importance to remember that unless the fistulous communication is very large, the food will pass through the pylorus." A little further on he says, "Consequently such a communication should not be established in the absence of organic disease of the pylorus."

2. The theory in regard to the value of the alkaline secretions entering stomach through gastro-enterostomy is of doubtful value. Some authorities claim that bile and pancreatic juices neutralize acid contents of stomach coming through gastro-enterostomy opening. Smithies (4) makes his statement, "Bile was present in 9.5 per cent of the gastric contents from 140 non-stenosing ulcer cases that I analyzed and yet two-thirds of the ulcers lay in the pyloric fourth of the stomach where they could secure the maximum benefit of bile regurgitation should it contain antipepsin." Just recently in one of my cases where the excision wound of an ulcer of the anterior surface, about three inches from the pylorus opened up, we had a free discharge of bile and pancreatic juice from the abdominal wound. Juice taken from the sinus was neutral and alkaline in reaction.

3. Does not remove diseased tissue: With our present knowledge that malignancy is sometimes preceded by ulcer (5) is it not the logical and rational thing to remove this diseased tissue?

4. Leads to complications: We all know of ulceration at the site of the gastro-enterostomy. This may be due to suture material or other causes but most often at secondary operation the suture is revealed. Woolsey (6) reports an interesting case where suture three inches long was hanging from stoma and more was pulled out from wall. No ulcer was present in this case.

5. Jejunal ulcers are frequent occurrences after gastro-enterostomies. Judd (7) states, "Jejunal ulcer is one of the most serious and perhaps one of the most common after-complications of gastric-enterostomy." Should ulceration take place at the stoma, the danger of hemorrhage and perforation is obvious.

6. Experience has taught us that ulcers situated high up in the cardiac end and posterior wall of the stomach are not benefited by gastro-enterostomy.

7. Habit. It is a well known fact that gastro-enterostomies have been performed just because a diagnosis of ulcer had been made previous to operation but not demonstrated at that time. Van Buren Knott (8) in an excellent article discusses this phase of gastro-enterostomy.

These are a few of the many objections to gastro-enterostomy.

I now wish to call your attention to excision combined with jejunostomy in the treatment of gastric ulcer. I have tried this in a number of cases with excellent results. Of course I must admit that not long enough time has elapsed nor enough cases have been operated in this manned to bring this before you as a standardized procedure or cureall. However the results have been gratifying so that I feel justified in calling it to your attention.

It is through the work of my colleague, Dr. A. I. McKinnon (9) that I first was impressed with the idea that jejunostomy might be a good adjunct to excision in the treatment of gastric ulcer. His most excellent results in intestinal obstruction, acute illeus, and post-operative illeus are to be marveled at.

The advantages by excision with jejunostomy as I see them are as follows:

1. Removes the diseased tissue.
2. Avoids complications that you have with gastro-enterostomy.
3. Places the stomach at rest as nearly as possible. According to the Gradien (10) theory under normal conditions the peristaltic wave starts at the cardiac end of the stomach and varies in intensity according the segment of bowel in action. It being more active in the upper gastro-intestinal canal. It is also possible to cause the peristaltic wave to start lower down in the bowel by applying

a stimulus at a certain point. This is done by a jejunostomy opening.

4. Permits of perfect feeding over long period of time if necessary, being much superior to rectal feeding.

5. Permits of intestinal drainage especially in the case of accident or complications following operation.

I will report just one case to show you results.

Mr. H. B.—A railroad laborer, 42 years of age, a native of Russia. Married. His family history is negative. Personal history negative excepting ten years ago at Billings, Mont,. during a night had severe pain in left hypochondriac region. Patient was sick for one month. He was symptomless for seven years thereafter.

Clinical History. Three years ago he came to me complaining of pain in the epigastric region. No definite history was obtained at this time. An X-ray examination was made but owing to faulty technique the examination was negative. He was placed on alkalies and various laxatives. After this he would improve and have periods when he thought he was well. Several times thereafter his pain reappeared and following the same plan of treatment he would again improve.

Finally on August 17, 1920, he again presented himself with a severe pain in the R. hypochondriac and epigastric regions, which the former treatment would not allay. Eating had absolutely no bearing on the pain. At no time had patient vomited either food or blood. No coffee ground stools had ever been noticed. The last time he presented himself he sat around the office not on a chair but in a doubled up position so severe was the pain.

Physical Examination. Heart and lungs were negative. Pulse 80, temperature 100. Abdominal muscles had the board like rigidity in upper abdominal region. Otherwise nothing could be detected in abdomen.

Laboratory Reports. Urine, blood, testmeal and Wasserman tests were negative.

The X-ray examination was made by Dr. Carl Kail. His conclusions were as follows;

"Large perforating ulcer on lesser curvature and posterior side of stomach, which fills and empties itself throughout the examination. Stomach probably involved in a mass of adhesions."

Diagnosis. Chronic perforating gastric ulcer.

Operation. A long R. rectus incision was used. Stomach was exposed. The lesser omentum was divided which brought to view an inflammatory mass and dense adhesions. In breaking the adhesions we perforated into the stomach; this brought to view a hard calloused ulcer the size of at least half a dollar. A large V-shaped piece surrounding the ulcer was excised. The stomach was closed with a double layer of catgut sutures. The lesser omentum was reunited and a drain placed in lesser sac behind stomach. Next a jejunostomy was done by Dr. McKinnon who was present as a spectator. The wound was closed in the usual manner and patient returned to bed in good condition.

Post Operative Observations. This patient at once received stimulating fluids through the jejunostomy tube. He was fed through this tube for eight days when the tube was removed. He was then fed per stomach. In all my experience I have never had a patient that made a nicer post operative recovery. He never vomited at any time. There never was any abdominal distension. He left the hospital in twelve days, his wounds entirely healed. Three months later he had gained forty pounds. Up to the present time he has lost only three days as a railroad laborer. He is entirely free from stomach symptoms.

Bibliography

1. Sir Berkeley G. A. Moynihan, British Medical Journal. No. 3108. July 24, 20 P. 99.

2. John B. Deaver, Surg., Gyn., and Obst., Vol. 33 P. 103.

3. Burton-Opitz, Textbook of Physiology. P. 1010.

4. Frank Smithies, Surg., Gyn., and Obst., Vol. 26 P. 200.

5. D. C. Balfour, Surg., Gyn., and Obst., Vol. 24, P. 732.

6. Geo. Woolsey, Surg., Gyn., and Obst., Vol. 25, P. 481.

7. E. S. Judd, Surg., Gyn., and Obst., Vol. 33, P. 120.

8. Van Buren Knott, Surg., Gyn., and Obst., Vol. 23, P. 21.

9. A. I. McKinnon, Medical Herald, Vol. 36, P. 269. J. A. M. A., Vol. 77, P. 273.

10. Walter C. Alvarez, A. J. of Roentgenology, Vol. 8, P. 1.

DISCUSSION

Dr. Wm. A. Shelton, Kansas City: In the cases mentioned by Dr. McKinnon, using local anesthesia, we must realize that we are operating on very weak patients, and must use great care. All surgeons should be required to do some work under local, they would learn to be more careful. Patients with intestinal obstruction should not have general anesthetic. The peritoneum, being supplied both from sympathetic and the cerebro-spinal system, is very sensitive, but in the deeper portions is not very sensitive, and local anesthesia can be used very easily.

Dr. Ridell: I wish to ask Dr. McKinnon how long he leaves the tube in the jejunum.

Dr. McKinnon: It will usually slip out in three, four or five days. It is best to use silk suture for purse string, as catgut will dissolve too soon, and

a fistula may result. I had a case in which appendectomy had been done without relief; later a gastro-enterostomy, and then an exploratory—all without relief. He was then sent to a Colorado Sanatorium, but was returned by them as not tuberculous. He was then sent to Sippy, where he was under treatment for four or five weeks. Then he came into my hands, much emaciated. I supposed he had an ulcer. Found on operation a large ulcer on posterior wall of stomach, adherent to pancreas. The old gastro-enterostomy stoma was about two inches long. I separated the jejunum from the stomach, could not lift the stomach out on account of the adhesions. I did a jejunostomy, which was very difficult to do in this case, and inserted a tube. He had no gas pains; his convalescence was much smoother than in former operations. There is no drainage in the first twenty-four hours, from this operation, due evidently to its either paralyzing or inhibiting peristalsis. There are no gas pains and no distention. Finney advises to relieve obstruction early; the late cases are more fatal.

Another indication for jejunostomy is in postoperative ileus—the cause of the greatest mortality in abdominal surgery. When the symptoms come on, get the patient to the side of the bed, make a small incision. using local anesthetic. Use the ungloved finger, as you cannot locate the jejunum with the gloved finger. The incision need not be more than one and a half inches long.

Dr. Hohlen (Closing): I wish to add testimony to the good work of Dr. McKinnon. On the same day that he had his case, I removed an appendix. Another surgeon operated on a child. Both patients died, but Dr. McKinnon's case of jejunostomy got well.

CARCINOMA OF THE LUNG

E. A. GUMMIG, M.D., St. Joseph, Mo.

Read before the Buchanan County Medical Society.

IN presenting this subject and case report, I have no expectation of adding any original thought to literature, nor of reporting any unique case. My object rather is to call attention to those cases which occur in the practice of everyone, and are easily passed by most men as something of only minor importance, and later fall into the hands of some one else and are diagnosed by them not on account of our incompetency, but on account of our own negligence.

The etiology of primary tumors of the lung are enveloped in the mystery which surrounds that of new growths in general.

Admitting that there are primary cancers of the lung, we find them more frequent in men, about 3 to 1; this being in harmony with the theory that trauma is an etiological factor.

In case reports, about 80 per cent gave clear history of some previous injury to the thorax. Cobalt workers are especially predisposed to pulmonary cancer. Like carcinoma of the lip and tongue, carcinoma of the lung is more frequent in men, considering it as a primary tumor, while the metastatic is more frequent in women.

The bearing of trauma upon the origin of carcinoma is to be held in mind only; as males are more liable in general to injuries than females.

The morbid anatomy depends largely upon whether the growth is benign or malignant, primary or secondary. Primary tumors are much less frequent than secondary, due either to metastasis or to extension from contiguous tissues. The primary are usually unilateral, and secondary bilateral, also the metastatic are usually widely disseminated.

Benign tumors of the lung are very rare. Adenoma of the bronchial glands have been found. Of the connective tissue series, osteoma, chondroma fibroma and lipoma are occasionally met, and they are usually small and multiple. A few cases of primary enchondroma are on record, and they are usually small tumors, originating from the bronchial cartilages, usually give rise to no symptoms, and consequently are of pathological interest only.

Malignant tumors are the sarcomas and carcinomas. Carcinoma is the most frequent tumor of the lung and, while compared with sarcoma, a relative large proportion are primary, the greater number even of cancers being secondary in origin.

The primary cancer is usually encephaloid in type, although from the anatomy of the lung most secondary growths, also even if from a scirrhus, assume a very cellular structure; however, I wish to emphasize the fact that carcinoma of the root of the lung tends to become excessively fibrous.

Primary carcinoma may involve one lobe of the lung, or the entire lung, while secondary foci may develop by dissemination of the original tumor. The pulmonary tissue may be invaded, however, by tumors originating in bronchial mucous glands.

Primary cancer may remain in the lung or extend to neighboring structures, including the opposite lung. The tumor may appear externally, but extension through the chest is not frequent, but should a bulging be present it is a great aid in diagnosis.

At times when a bronchus is invaded, the growth extends through the wall and appears as papillary masses projecting into the lumen. In these cases, possibly more often than when the growth is confined to the pulmonary alveoli, fragments or individual cells may be detached and expectorated, a few cases having been diagnosed by finding these in the sputum.

Secondary cancer is commonly bilateral, unless due to extension from contiguous tissues, these including the mediastinum, neck, chest

wall, and through the diaphragm from abdominal structures.

The possibility of extension from the parietal pluera without the intervention of adhesion is held by a few men, but is very rare, indeed.

Lymphatic metastasis is a common source of these tumors, and possibly some may occur through the circulation. Lastly the extension through the air passage of squamous epithelioma of the mouth may be mentioned as another source.

The effect on the lung of all varieties of malignant growths is much the same.

According to their size, they are substituted for small or large parts of the pulmonary tissue and exert pressure on all or a part of the remainder.

This usually leads to compression and atelectasis of the tissue immediately bordering the tumor, and, as a whole, the intervening lung becomes emphysematous and especially so if the growth be large or in the shape of multiple foci. Congestion and added oedema may occur in the pulmonary tissue so that not infrequently we may have a haemoptysis, so we must be careful not to become confused with a diagnosis of a tubercular hemorrhage, if the history of the case may be a little cloudy.

Pressure on the circulatory and lymphatic system at the root of the lung lead to secondary changes, as atrophy, necrosis, oedema and atelectasis; such as would develop from like interference by other causes.

Symptoms: The benign tumors may be disregarded on account of their rarity and also for the reason that when they are present they usually do not produce any disturbance. When these growths are secondary, occasionally their evolution is so slow and the manifestation of malignant disease in other parts of the body so pronounced, that the pulmonary involvement is frequently not discovered until autopsy is performed, however, when the tumors are primary, or metastatic following some operation where we supposed we would not have a recurrence, the disease manifests itself by marked, although by no means distinctive, symptoms; consisting primarily of dyspnoea, cough, expectoration, pain and sometimes dysphagia.

Dyspnoea is constant and progressive, at first hardly noticeable only on unusual exertion, but gradually increasing until the patient has orthopnea. The dyspnoea is most severe in cases where the neoplasm invades the mediastinum or presses on the lower portion of the trachea. Circulatory disturbance, bronchial pleural invasion, also being contributory to this symptom. The more rapid growth of the tumor, of course causing severe dyspnoea much sooner than those of slower evolution.

Cough is variable, depending to a great extent upon the location of the growth; for instance, pressure on the pneumogastric nerve producing a hard, dry cough, while if the tumor is disintegrating or an associated pneumonia be present, we may expect the cough to be more free, with expectoration.

Expectoration is variable as to quantity and characteristics. It may remain mucoid or mucopurlent throughout the disease, or may, at times, be bloodstained. Sometimes the blood is coughed up as clear red, homogenous masses, which have been compared to currant jelly. There is nothing significant about the sputum, unless it should be the odor produced, or the finding of some cells of the growth.

Pain: Intercostal pain is not uncommon, but it may be so severe as to cause distress. Occasionally there is a neuralgic pain extending down the inner side of the arm, being due to pressure on the costohumeral nerve. Sometimes there is a Herpes Zoster, following the course of a nerve thus compressed. In involvement of the pleura there is practically always intense pain, and is constant.

Dysphagia is practically only present when the growth makes pressure on the oesophagus. Pressure upon the recurrent laryngeal nerve may cause disturbance of phonation; such as hoarseness, inspiratory stridor, causing aphonia; while pressure on the pneumogastric gives us the cardiac disturbance, although encroachment upon the large blood vessels in the lung will also produce circulatory disturbance; also, if the superior vena cava is involved, symptoms of cerebral congestion will supervene.

Two other symptoms worthy of mention, without explanation, are haemoptysis and fever. Regarding cachexia, it may be stated that, as a rule, it develops more slowly and is not so pronounced in primary malignant disease of the lungs as it is in other forms of cancer and sarcoma.

Physical signs: These depend upon the size, location, the surrounding pulmonary and other contiguous tissues. Thus when a considerable area of the lung is involved by an extensive infiltrating mass the signs will be different than when only a few isolated nodules are present; also, I want to state that we will usually find the former, as a rule, cases are not diagnosed until well advanced; again when blood vessels are compressed by the neoplasm, we find the circulatory manifestation that are absent when the tumor is so situated not to impinge upon any vessel.

Upon inspection in a well-advanced case, dif-

ference in shape of the chest may be noticed. In case there is a large infiltrating growth in the lung, the corresponding side may bulge, and the intercostal space widened. Pleural effusion may also cause bulging. Vice versa; when you have bronchial occlusion, with collapse of the lung, the chest may be retraced and the chest measurement be decreased, the affected side usually not moving with respiration.

A large amount of pressure on the internal mammary or on the superior vena cava giving distension of the superficial cervicial veins, also unduly filled superficial veins of the chest. I will not undertake to go into detail concerning the findings upon auscultation and palpation as they are familiar to every practitioner and need no special explanation, as they are variable, depending upon the size and location of the neoplasm, although I want to state that associated pulmonary congestion or oedema as well as bronchitis give rise to various rales; while if a cavity is present we have the cavernous breathing with pectoriloquoy. Cardiac sounds are often abnormally distinct, being transmitted through solidified areas.

Complications: The chief complications are pneumonia, pleurisy, gangrene and atelactasis.

The pluera is a frequent seat of attack of malignant growths, with the result that it becomes much thickened and indurated. Effusion into the pleural cavity is not at all uncommon when such involvement is present, and the fluid is usually very likely to be sanguinolent. A purulent effusion is very rare. Pneumonic consolidation and oedema of the lung are sometimes observed and no doubt in many cases are due to pressure upon the pulmonary vein, although it may be the result of stasis of the smaller vessels.

Gangrene may be present as a result of the destructive process itself or may follow occlusion of blood vessels from pressure.

Atelectasis is not at all uncommon, owing to occlusion of the bronchi. Metastasis in other parts of the body, the liver, kidneys and joints, sometimes occur. A few cases with external perforation have been reported, but such cases are rare.

Diagnosis: This is usually very difficult, and especially so if the tumor is small and deeply situated,, even when several nodules are present, characteristic symptoms may not be manifested, and the physical signs may be similar or identical with other pulmonary disorders

Metastatic growths are very apt to escape our attention, especially if they occur late in the course of a primary malignant disease.

Pulmonary symptoms associated with emaciation, and cachexia supervening after the removal of a malignant growth elsewhere in the body would naturally arouse suspicion.

In cases where the malignant process is extensive and contiguous, and, perhaps, remote structures involved, diagnosis will be readily made.

Cases where there is an early involvement of the pleura may be hard to recognize.

Bulging of the thoracic wall may be caused by the tumor or accumulation of the pleural fluid, but when due to the former, it is apt to be more irregular. An encysted empyema may give rise to a bulging and must be borne in mind.

Again in the tumor, dullness may extend from above downward, quite the opposite in pleural effusion. Tumor dullness is often not uniform, where—as in pleurisy with effusion there is very little variation in degree of intensity unless the patient changes position.

Thoracentesis affords valuable aid. If shreds of tissue adhere to the needle and prove to contain carcinomatous cells, it will, of course, be positive diagnosis.

When fluid is obtained and it is haemorrhagic, it is very apt to be a milignant disease. If the fluid is sanguinolent, tuberculosis must be eliminated. Again, if the needle should be passed through a much thickened pleura without finding any fluid, the evidence is strongly in favor of malignancy.

Very often tumors of the lung producing mediastinal compression will produce symptoms of aortic aneurysm, in which the most valuable point of differential diagnosis will be, that when an aneurysm has reached this size it will usually form a pulsating tumor, with no supraclavicular gland enlargement. New growths of the lung may easily be confused with tuberculosis.

Thus when a few nodules undergo softening, cavities are found, and haemorrhage takes place, the disease may be easily mistaken for pulmonary tuberculosis; especially is this true if they be found in the upper anterior region of the thorax. The presence of fever in such cases lends aid to the mistake, as does the existence of rales produced by the disintegrating tissues.

In such cases, age will lend some assistance, and persons past middle life should always be considered in regard to malignancy. Last, but not least, the X-ray is the valuable aid in final diagnosis.

Prognosis: Malignant disease of the lung to date is, of course, incurable. Death may result from asthenia, asphyxia, hemorrhage, gangrene or oedema.

No adequate data is obtainable in regard to length of life on account of not being able to

ascertain the beginning of the disease, but they usually succumb anywhere from a few weeks or months, or even two years after the manifestation of the first symptoms.

Treatment: All that can be done is to relieve symptoms and endeavor to sustain the patient's strength. Operative treatment offers no hope of success. If a primary growth could be recognized early, it might be successfully removed, provided it was so located, but in our present knowledge it has been impossible to make diagnosis sufficiently early to even entertain any thought of surgical intervention.

As to the therapeutic effect of radium, the best authorities claim it does not have the same effect on carcinoma of the lung as elsewhere.

The X-ray is undoubtedly the best treatment that we have at present.

Case Report

Called to see Mrs. W. T. L., on September 6, 1920, who had been treated by two physicians during the previous six months. She gave the following history: Age 40 years, had right breast amputated three years ago, presumably for carcinoma. No diseases of childhood or any other serious illness.

Married two and one-half years. On May 30, 1920, was in an automobile accident, but with the exception of receiving a blow on the left side of the chest was uninjured.

This patient had a well-advanced cachexia, no pain, no dyspnoe, no dysphagia or bulging of either side of the chest, but was expectorating a rather thick sputum, rather green in color, but in small amounts; also had a well-advanced ozena.

After examining this patient the second time, I asked for consultation, and called an internist who diagnosed empyema (left), and suggested that the introduction of a large needle would confirm the diagnosis.

The needle was introduced in three different places, and in only one place did we find any fluid and this was bloody.

Following this the chest was X-rayed and showed carcinoma of practically the entire left lung with involvement of the right.

This patient was comfortable continuously, except she was rather weak during the last month.

She lived until October 15, and autopsy showed entire envolvement of the left lung, including the pericardium, also the middle lobe of the right lung.

Microscopic examination showed scinhus carcinoma.

801½ Felix Street.

THE PRACTICE OF OBSTETRICS AN ART

A. B. SOMERS, M.D., Omaha.

WOMAN is fearfully and wonderful made, but man has sought out ma inventions. Reproduction is the gre est triumph of a woman's life, and, to a great degree than any other process, is a test function. If there are weak spots they almo certainly show up at some part of the obstet cal period.

It is safe to say that more than 80 per cent all cases of pregnancy will go through to su cessful termination if left to themselves, a the vital question, from my point of view, what may be done to alleviate the suffering cidental to pregnancy and restore the indiv ual to normal conditions in the 80 per cent the cases, and, further, what may be done help out in the 20 per cent that need artific aid.

Efficiency can be raised to quite a degree prenatal care, but that subject is outside the scope of the present paper. Suffice it say that woman is not a pathalogical labo tory but a physiological entity, and it is w for us to bear this in mind in all of our m agement of obstetrical cases. With this thou uppermost, we will make the best of con tions that exist and give the woman a cha to do her best, rather than rush in where ang fear to tread and reduce our obstetric prac to operative procedures.

No department of medicine requires so m practical good sense for its successful mana ment as obstetrics. Two lives are at stake, it becomes the obstetrician's duty to s guard both of them to the highest degree of ability in every instance. Unnecessary suf ing is to be alleviated by every legitimate me od, and the lives and well-being of two p sons must receive our utmost consideration

During my student days I was quite timately acquainted with an aged physic who was practicing medicine one hund years ago now. He told me that they wen their obstetric cases with very little in way of preparation except some gum opi and this they used to alleviate undue suffer promote rest, and, in a degree, hasten the stage of labor. As a result of their lim equipment they did very little operative w their chief function being waiting. And these men were successful obstetricians spite of their limitations, as compared with

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present day. There was an occasional tragedy, but the mortality rate was low.

Fifty years ago we had our hypodermic solutions and hypodermic needles with anesthetics, and that prince of teachers, T. G. Thomas, taught us to use the morphine in prolonged or difficult first stage of labor, and also to use anesthetics during the final expulsion of the child, and these are methods that I have used with a varying degree of success in my own practice for a period of fifty years. Twilight sleep is a modern innovation, but it has nothing very decidedly in advance of morphin and atropin in the early stage, and ether in the expulsive stage of labor.

At the beginning of this century there were four methods advocated by different men, prominent in the profession, for relieving obstruction due to obstinate servix. There was the powerful steel dilaator, the conical rubber bags, which had come to us as an improvement on the old Barnes' bag of more than fifty years ago, cervical incisions ,and manual dilitation. None of these were adopted for universal use, but the bag method of dilatation has, to a large degree, supplanted the other three methods.

Previous to that time we had depended on sponge tents, bougies, and packing of cervix, either to induce or facilitate labor, which had been used with varying degrees of success from time immemorial. Incidentally, I believe that the bougies still has a place as a method of inducing or stimulating labor pains.

Now comes Dr. Reed of Chicago recommending the induction of labor as a method of election at full term, by the use of the conical bag. In this way he brings on labor and materially shortens the first stage. The question of the care of the second stage seems to be a matter of less importance, as he has no specific recommendations to make, his chief point being to induce labor. An artificial first stage, by whatever method, is likely to be followed by an abnormal second stage in a large percentage of cases.

Dr. Potter of Buffalo is advocating patient waiting on the first stage of labor and then doing an elective version, and his figures show that he is doing versions in 80 per cent of his cases. He is also doing Cesarean sections on upwards of 8 per cent of his cases, and I have no doubt that the remaining 12 per cent are either breech presentations to begin with or precipitate labors. Doubtless Dr. Potter has become expert in versions, but we cannot all be experts if we would, and it is a good deal of a question if it is desirable that we should, especially if we are to adopt versions as a fad.

Dr. DeLee is an advocate of episiotomy and forceps after the head has descended low in the pelvis. What will be the next recommendation in order? Reed's method in the first stage, Dr. DeLee's or Potter's in the second stage? Possibly some daring man will come to the limelight and advocate bag dilatation in the first stage and delivery by version in the last stage, the old Accouchment-Force, a method that has been cast into the discard several years ago. No one has been so bold as yet to recommend elective cesarean section as a method of delivery, but there are men who are delivering by this method in quite a large percentage of their cases.

So far as heard from, the leading men of Boston, New York, Philadelphia, John's Hopkins and St. Louis are slow to adopt the radical methods referred to, and it would appear that the average man may well keep to beaten paths rather than to start out experimenting along radical lines. The great mass of obstetric work is in the hands of the average physician who has had no special training along these lines over and above what he has had in medicine and surgery, and as a result he is neither an expert or a specialist.

Metropolitan Life Insurance Company, an institution which does a large insurance business among women and children, notes the remarkable increase in maternal death during labor and asks for comment thereon. Dr. Herbert N. Little of Montreal, in a paper read before the New York Academy of Medicine, says, "The methods in use in the Montreal Maternity today are simpler than at any time since that institution was opened, and the results are, so far as I can classify them, better than at any period since that date."

Further, he states, "For ten years I personally have made no vaginal examinations except in operative cases, and, save for the practice of gaining familiarity with a cervix previously palpated through the rectum, none of the internes in the hospital make vaginal examinations."

It is interesting to me to see what an expert can do along radical lines, but it is interesting the same as a horse race is interesting, to see if they can knock off a second from previous records. If I were teaching and practicing obstetrics, which I am not, I would go to Buffalo to see Dr. Potter do versions, but I would do so that I might perfect my technic in versions and not for the purpose of adopting versions as an elective method of delivery.

The tendency of twentieth century medicine is evidenced by an effort to reduce everything to a scientific basis and carry on according to formulas handed down to us by our laboratories, which reduces things to exact chemical and physical analysis. Our laboratories are

dealing with death rather than with life. With our modern surgical knowledge and technic, there is a tendency to approach the pregnant woman as a surgen approaches diseased tissue, and set a time and place for operative proceedings .with or without an anesthetic There are some doubts whether such proceedings are progressive as a whole.

Some great advances have been made in surgical obstetrics during the present century. As a matter of fact, twenty years ago surgical obstetrics was resorted to only as an emergency procedure, as the only hope of saving the life of the mother, the life of the child being practically disregarded. On the whole, how far in advance are we, as a live saving measure in obstetrics, at the end of the first two decades of the twentieth century than we were during the last decades of the nineteenth century?

An article in the journal of the American Medical Association, by Dr. Polak, June 25, 1921, on the Defects of Our Obstetric Teaching, is illuminating along this line. He says: "That the number of women who die from childbirth is increasing from year to year and that puerperal septicemia seems to be the only form of wound infection the occurrence of which has remained totally unaffected in the past decade by the advancement of scientific knowledge. In New York City, on the island of Manhattan, last year one mother died for every 205 babies born, while in the greater city of New York, one woman in every 250 deliveries died from infection or as an indirect result of it. The mortality from puerperal infection remains practically the same today as it was in 1900; and the mortality from childbirth is second only to that from tuberculosis in women of reproductive age, and between 40 and 50 per cent of these deaths are due to sepsis. Furthermore, consider the fetal mortality: One baby out of every twenty-one is born dead, and one out of every twenty-six dies before it is a month old.

"More than 61 per cent of all gynecologic surgery is the direct result of poor obstetric practice. This great wastage of human life, this consequent invalidism in those who survive their infection and trauma is absolutely preventable; hence I feel that this subject is worthy of consideration by such a representative body as this.

"What are the reasons for this wastage of human life? It does not occur in the well-managed obstetric clinics where the patient is given the benefit of proper and painstaking prenatal care and good obstetric judgment. Why, then, is it necessary in every-day obstetric practice? Why should the mortality from childbirth place the United States fourteenth on the list among sixteen leading civilized nations?

Further, he says, "The average graduate has been drilled in mensuration, abdominal diagnosis, watching the progress of normal labor, auscultivation of the fetal heart, and in aseptic technic. He is a fair male midwife, nothing more. He is capable of delivering multiparas with ample pelvis, and this he can safely do, provided he is conscientious in his asepsis. If he is not, the woman is far safer to be confined without the presence of a physician than to have one who introduces bacteria from without."

The average M.D., when called to a case of confinement, apparently thinks that he is called upon to get active and hurry things, when, as a matter of fact, it is his business to remain inactive in most cases and pursue a policy of expectant conservatism. A little intelligent palpation and auscultation will reveal the presentation and physical condition of the child, and a little intelligent observation will tell whether the pains are proceeding normally, the mental attitude of the mother, whether it is hopeful or otherwise, and, if otherwise, this attitude should be changed by cheerful, helpful suggestions. A woman should be allowed to do her best, carefully watched for little details that would be helpful. She should not be allowed to become exhausted by' aggravating pains that are not producing results, nor by prolonged wakefulness that can be relieved. Apprehensions can be relieved by a spirit of good cheer and personal incouragement, and her whole attitude can be changed by a good hearty assurance that everything is alright and that she will be taken care of no matter what comes. In the times of stress most of us want some one, not something, to lean upon, and in these cases nothing takes the place of a good strong helpful, positive assurance from a man with a strong personality. The spirit of good cheer and watchful waiting accomplishes wonders in tedious cases many times.

The study and practice of obstetrics includes the entire process of reproduction, and you cannot reduce these processes to exact formulas. It is a study of life in its spring-tide, and our every effort, natal, prenatal, and postnatal, must be directed towards bringing our charge to the highest degree of efficiency.

To be well born one must select their grandmother and follow up by selecting their parents. With present limitations, the doctor has very little to say on the subject until the prospective mother comes to him the first time a few weeks pregnant or possibly in labor, suffering from any of the complications of preg-

nancy, and asks for his assistance. We cannot begin with the grandmother, but there is an unborn grandmother in prospect, and for a few months, at least, we have a chance to deal with the mother very directly, and very much can be done to advance the welfare of both mother and child.

This is not a matter of laboratory methods to any great degree, it is not a matter of surgical skill, but it is a matter of all-around good sense, with a complete knowledge of both normal and adnormal functions, with sufficient knowledge to advise regarding the habits of life of the prospective mother with sufficient tact to inspire confidence and, if need be, bring about some decided reforms in the mother's habits of life, both in her own interests and the interests of the unborn child. It is not sufficient to have some routine formula to apply to all cases. Individualities and personalities must be met and made to act and acquiesce in a program that will promote the greatest welfare to all concerned. Every individual case must be carried out along individual lines and not by routine methods. Many a woman functions normally until some extra strain is placed upon her. It may be childbearing, it may be some acute infectious disease, or some unusual hardship, when some important organ, the kidneys for example, will fail to meet the extra demand, and trouble ensues.

Without going into details, let me say that nature has taken extraordinary precaution to protect the mother at the time of childbirth from infection, and no one can gainsay the statement that all operative procedures and all manipulations and examinations violate this precaution in a degree and modern obstetrics is increasing the number of cases of infection in the hands of the unskilled. As a matter of fact, infections are very rare where there are no vaginal examinations or manipulations for a period of one month prior to, during, and one month subsequent to labor.

On the whole, meddlesome midwifery is bad, and this is doubly true outside the hands of experts. Operative procedures should never be resorted to as a time-saving measure, even in the hands of an expert, on account of the deleterious effects on the average doctor, if for no other reason.

We need more and better prenatal care; more hospitals, especially for those who are unable to pay; more intelligent watchfulness during the months of pregnancy and during labor; more safeguarding against exhaustion from loss of sleep or abnormal pains. In brief, more time and less hurry, more reliance on natural processes and less operative procedure. It is an encouraging sign when we see leading experts calling a halt on what may be termed pernicious activity in obstetrics.

In Shape of Conclusions

First: Childbirth, being a physiological process, cannot be reduced to mathematical exactness.

Second: A very large percentage of women have to be cared for and will be, by the average doctor and in the average home, without trained attendants, and under these conditions, manipulations and operations are dangerous.

Third: The average doctor is inclined to adopt operative measures because the atmosphere of our medical journals is full of it.

Fourth: "When doctors disagree, who shall decide?" We need a get-together measure on the part of radical obstetricians.

Fifth: It is not enough to say that the mortality and morbidity rate is no greater under radical methods. Modern science demands less mortality and morbidity, and this we have not accomplished during the past twenty years.

Sixth: We need more and better equipped maternities for the care of all classes of obstetric cases.

Seventh: We need more trained obstetricians, not necessarily experts.

Eighth: We need more prenatal teaching.

Ninth: In brief, we need more practical good sense and less haste in our obstetric practice.

Which Way Do You Face?—The regular medical profession, as a whole, is not entirely free from blame for division in its ranks; and for isms and athies, and a certain degree of lack of faith in it, and canny suspicion on the part of the public. It has not displayed the wisdom of self-protection shown by those little beasts of burden, the little he-haw, he-haw wild animals on the African plains. It is said of these little brutes, when they are threatened by an enemy, that they congregate in a circle with their heads toward each other and their kicking apparatus in situ on the outer side of the ring, and defend each other. The regular medical profession in the formation of its ring for self-protection has too many members facing the outside of the circle—Kas. State Med. Jour.

Dr. Daniel Morton, St. Joseph, will read a paper on Diagnosis of Cancer of the Rectum, and Sigmoid, at the meeting of the American Proctologic Society, St. Louis, May 22.

Dr. Albert H. Marshall has been appointed district and hospital surgeon of the Rock Island at Topeka, to succeed the late Dr. L. H. Munn.

HOW TO ARREST THE INCREASING PHYSICAL DEGENERACY OF THE RACE

By W. O. HENRY, M. D.,
Los Angeles, Calif.

(Continued from Page 88)

The Los Angeles Monthly Health Bulletin says:

"A heavy loss that is borne not only by industry, but also by the public, is that caused by accidents due to venereal diseases. One railroad attributes four wrecks on its lines directly to syphilis. The engineers in each instance had paresis, a form of syphilis which incapacitated them at a critical time and caused them to lose control of their trains. The loss in lives and property was great. A large lumber company reports that two-thirds of the accidents at its various camps are traceable directly to venereal diseases, One state is paying more for the care of its syphilitic insane than for the prevention of all preventable diseases including the venereal diseases."

It is, therefore, not surprising that many states are adopting means to sterilize some of these to prevent the constant increase of these undesirables.

What shall be said of this report sent out from the Surgeon-General? "The estimated number of syphilitics among the registered men, but not called in the first draft, was 445,000, while five times as many, or 2,225,000, had gonorrhea.

Syphilis causes millions of miscarriages and hereditary taint in children.

Two hundred and five thousand deaths occur every year in the United States from venereal diseases. Twenty-five per cent of the patients in asylums are the result of venereal diseases."

Hugh Cabot says: "Society must control syphilis, or syphilis will control society."

Do you know that in this beloved country of ours, with its splendid men and women and the glorious privileges and blessings we enjoy, there are almost half as many criminal abortion murders every year as there are births?

Do you realize that not less than 100,000 unmarried girls give birth to as many children who are deprived of a father's name? And do you know that from sheer neglect, or worse, the majority of these die within six months? A daily paper says, "So-called charitable institutions are past masters in murdering friendless children." This paper goes on to say, "Here is a picture well drawn, not exaggerated, of the treatment that our civilization accords, not occasionally, but every year, to thousands of unfortunate girls. 'What awaits her and the baby? They disappear into a world, the awfulness of which is beyond our imagination, a world of charlantans, unscrupulous or callous doctors and grasping ruthless midwives, whose only idea—this is a plain, literal statement of fact—is to wring as much money out of the girl as they can, counting **on the cruel pressure society** puts on her to hide and deny her own child; and after they have extorted all the money which playing on her terror and inexperience and confusion of mind will produce, their next idea is to kill off as soon as possible the baby which she has entrusted to them, in order that they may be free to start on another ghoulish hunt for another hapless girl whose innocent baby may be used as another lever to secure more money."

Does anybody raise a hand to correct this tragic evil, or offer real help to these women who, by very neglect, are made outcasts? Shame upon a civilization with such a travesty upon humanitarianism or simple justice, to say nothing of the plain teaching of the Founder of Christianity!

We must also remember that a large class of women who, though married, refuse to bear children, as well as those husbands who insist upon few or no children. Prof. Cattell, "Editor Popular Science Monthly," in a carefully prepared paper, said, in 1914, "Special statistics have been gathered for college graduates. President Eliot, in his report for 1901-2, stated that 634 married Harvard graduates of the classes from 72 to 77 had an average family of 1.99 surviving children. Other data concerning the families of college graduates have been published by Prof. Thorndike, President Hall and others. The Harvard graduate has on the average, there-fourths of a son, the Vassar graduate, one-half of a daughter. The gross size of the family of the college graduate has decreased from 5.6 at the beginning of the century to 2.5 and 2 for class graduates in 1875.

What, then, are the causes leading to the recent decline of the birth rate? There is a biological adaptation which limits the fertility of a woman to about twelve children, and social conditions have led to one-half of the women of child-bearing age being unmarried. It is generally believed that the principal cause of the small size of the modern family is voluntary limitation. A definite answer is supplied by information given to me by 461 leading scientific men." In this connection it will be well to remember that Sprague, a very careful statistician, has shown that, in order for us to keep our population up to its present ratio, the married women should all bear four

children. Whereas, the fact is they bear only two. L. I. Dublin, a well-known authority, says, "There has been in this country for the past forty years, a steady decrease in the birth rate."

Nor should we forget that the very means used to prevent conception, as well as those used to intercept it, are ever doing physical injury and moral harm to this great army of women. It is but another illustration of that never-failing fact that **the violation of law always brings punishment.**

It is well known that thousands of women die every year in the United States from criminal abortions and some millions are invalids because of this crime. Multitudes of women seem to have no moral sense of this sinful and injurious practice, in addition to its baneful physical defects; and do not realize that both they and their criminal assistants must one day give account of their murderous assault upon their innocent and helpless victims to the God of the Bible. In a new law just drafted in France, "Enticement to abortion is punishable by imprisonment for from six months to three years, and a fine of from 100 to 3,000 francs. Offered aid to prevent conception is punishable by a term of imprisonment of from one to six months and a fine of from 100 to 5,000 francs."

It is just as true today of physical degeneration and many preventable diseases as it was when the young Virchow said, "The remedy lies not in medicine, but in education." He should have said **proper** education, to include both scientific and religious. In my opinion, right living should be based upon a correct knowledge of Bible teaching; and the scientific laws of health, all of which should be faithfully observed.

Dr. J. N. Hurty, Commissioner of Health of Indiana, when writing of the Social Diseases, says: "What is the cause that these terrible sexual plagues should so continually and so horribly plague the human race? What is at the bottom of it? I think **the principal** reason lies in the very strong, exceedingly strong, sexual appetite of men. We know full well that that appetite was given for a purpose by the Creator, and, at the same time, He gave us freedom of will and gave us power of free will to exercise and control it. The social evil is largely a man's problem." He should have said that **sin** was and is at the bottom of this evil and that man was given this greater sexual appetite because he was intended to be the **head** and **ruler** of the home and he should be taught to **master** and **control himself** in order to make him a fit ruler of the home. But more, the sexual appetite or function is just as pure and clean and holy as any other function of the body when **rightly used** and **not abused,** and all this prudery of society which seeks to taboo the whole question of sex is an insult to decency, true religion and morals.

All the venereal diseases and ills which have ever come to the race because of the Sexual System have come from the abuse or improper use of these most important organs. And as Society has become enlightened in many ways it has put on a hypocritical face and seeing only the evils arising from this abuse has sought to ignore or make light of its God-given place in the welfare of the race and is about to impugn the Almighty for giving man such wonderful powers.

Take as a further illustration, the divorce evil which is so seriously menacing the home and therefore the stability and purity of the Government. We lead the world in divorces as well as in crime and business.

From 1867 to 1906 our divorces had increased 319 per cent and in recent years it has grown still faster. I have said and still believe in answer to the question,

WHY CHANGE YOUR WIFE?

Because only one-fourth of the wives are making diligent efforts to fulfill their God-given mission. These remain for life their husbands' sweethearts, despite the devil's vamps.

The other three-fourths through ignorance, indifference, selfishness or bad husbands, furnish the unhappy homes.

Public opinion keeps men from telling why they forsake their legal wives; and from openly taking their REAL WIVES.

God made woman—

First: To be man's helpmate; not his rival, competitor, master nor slave.

"I will make him an helpmate for him."

Second: To establish homes and propagate the race under the most favorable conditions.

"Be fruitful and multiply."

Third: To become by satisfactory sexual relations, ONE FLESH with her husband; and thus meet man's greatest physical need, which only woman can supply.

The woman who does not thus become ONE BODY with her husband, though a good housekeeper, companion, friend or mother of his children, is not a Scriptural wife.

"Wherefore they are no more TWAIN but ONE FLESH. What therefore God hath joined together let no man put asunder."

Men will change their wives until they learn and seek in God's way to fill their places. "So ought men to love their wives as their OWN bodies."

When you remember the millions of chil-

dren in our large cities and industrial centers who are under-fed and over-worked you cannot doubt that this is an additional cause for the physical degeneracy of the race.

And now while vastly more along these same lines might be said, and further quotations from many observers might be cited, let this suffice to add that all careful students and investigators agree that physically as well as morally the race is in a decided process of degeneration. While the recent war gave such a staggering blow to modern civilization that men have been at a loss to account for it, and outside of Revelation it cannot be explained.

But now having made our diagnosis, what is the treatment? What is the remedy? Having investigated until we have discovered the cause of the trouble (sin), and the many contributing agencies how may we prevent and cure the evils and arrest the physical degeneracy? Let me hasten to say that any proposed remedy in conflict with plain Bible teaching can be of no lasting benefit on either moral or health problems. And any such measure though it seems to give temporary relief is a delusion and a snare. To illustrate the point: If you forcibly take a man's liquor from him either by prohibition or by putting him in jail, you have not done him any real or permanent good, because his inner craving for some evil thing will persist until he can supply it in another way, and therefore the great increase of drug fiends and tobacco users among such people. The evil desire itself must be changed for a **good one** and not merely the environment.

There is a command: "Thou shalt not kill." If a man has an insane desire to kill himself and you rescue him from death by drowning, it will not be long until he will try another method to accomplish his purpose. It is not enough to take the deadly knife from the assassin who seeks the life of his fellowman, for if he is bent on such an evil purpose he will not be too particular about the means to accomplish the evil desired.

A patient of mine came to me for a prescription to get some whiskey for beverage purposes; and when I said to him, no Don you do not need whiskey nor any kind of liquor, in fact you are fast making a physical and moral wreck by too much liquor, he said oh well I can get plenty of this bootleg stuff, but I would rather have the good old kind. I saw him a few days later and he said, well I got it and had a good old drunk for two days. And as you **all know,** men and women who have evil and **vicious desires,** will, unless **good desires** are substituted for them, use some other drug or agency to satisfy those evil cravings, and the patient has simply gone from one b thing to another to supply the demand.

In many of these health problems, if not of them, **there is a positive and distinct mo element, so that the right moral attitude just as important for lasting results as is t medical or physical treatment.**

It is said that that 12 to 15 million women Europe are destined to die without husba and legitimate children because of the short of men.

It is suggested that in France the women planning on making other arrangements or one paper puts it, "France is threatened w becoming a nation of unmarried women a bachelor men. * * * The war and c bacy among the male population has turn both sexes toward a natural destination abhorrence of married life. They will ne wed and never have children, except throu some system of free love which will not be fit the State or Society."

No wonder France is alarmed by her creasing birthrate and increasing death r and her terrible physical degeneration. her proposed remedies will be utterly fu because in direct violation of Bible teaching

One of the most capable writers in United States and special writer for a lead paper says:

"The French so far as their army of yo women is concerned, are making other pl The young men are dead, they say. The the in France and some other countries is t war, which changed many things, tempora changed the laws of morality, and that crime of condemning fifteen million yo women to die without children is greater t the moral crime involved in making "other rangements."

What is your idea of this important mat Would you authorize temporary polygamy an expedient, with national support for children lacking a separate father to take c of them? Or would you have strict enfo ment of the moral code, regardless of war and the old maids? Or would you nature take her course," and let things dr

In other wars long ago the moral code more than once been temporarily suspen to provide citizens that nations needed. the church, broadly tolerant and intellig while not authorizing any infringement morals, took no active steps to punish or courage "other arrangements."

It is an important question, "Shall fift million young women live and die never kn ing the important duties and the great pl ure of maternity that makes life worth whi

In England where they claim to have nea

two million who must remain without husbands, it is seriously proposed by many to allow extra-marital relations in order that every woman may have the right to motherhood, and, the state maintain its population which is also fast declining. The Editor of the largest newspaper in the world, says:

"England is still worrying over the fact that she has almost two million more marriageable women than men—and the marriageable women are doing a lot of worrying on their own account. But the suggestion that some of the sociological experts are making for the recognition of an "extra-marital relation" should not be encouraged for a moment. These theorists start out with the proposition that every girl is entitled to become a mother. This is plausible, but embarrassing. For the good of the individual, the family and the state the rearing of children should be hedged about by precedent and regulation. Men and maidens are expected to conform to tradition. The present situation is unfortunate—possibly tragic, but it is one that time will correct. In a hundred years or so every woman will have a husband —either that or she wouldn't take one as a gift. Anyhow, she won't be worrying about it."

(To Be Continued)

ELECTRO-THERAPEUTICS WITH THE MORSE WAVE GENERATOR

The above is the title of a new book on direct and sinusoidal currents by Frederick H. Morse, M. D., Boston.

The little volume is devoted almost exclusively to technic of application with the Morse Wave Generator. Many cuts are employed to illustrate position of electrodes in conditions amenable to these currents.

The author says: "The purpose of this book is two-fold. First, to outline briefly as possible well-known facts and accepted theories of the physical and chemical action on human tissue, of electrical and mechanical therapeutic methods. Second, to establish a systematic base for application which, being scientific and rational, must meet the commendation of the profession."

"It is not the purpose of this book, which is intended only as a theraputic guide, to write history, theorize or express private opinion, but only to aid the profession in becoming better acquainted with the laws of electro-physics and the physiology pertaining to the subject."

The book is useful not only to those who use the Morse Wave Generator, but to anyone employing electric modalities in practice.

Burton B. Grover.

CLINICAL OBSERVATIONS IN RADIOTHERAPY OF UTERINE CARCINOMA

C. O. DONALDSON, M.D., and G. E. KNAPPENBERGER, M.D.

RADIUM considered the treatment of cinoma. Still a mooted point whether it choice in all advanced cases of uterine caris the best form of treatment in all cases. Many capable men hold divergent views. Until such time as the question can be settled, it is well to use any measure that might be expected to help.

The essayists reported primary results in 62 cases of uterine cancer treated with radium and X-ray; 11 cases treated post surgically; 51 cases treated with radium and X-ray alone; 54 were in the cervix and 8.in the fundus. Only 5 were early, localized, or could be classed as operable; of these five cases all are alive and apparently well after a period varying from six months to two years. In the advanced group which included border line cases to the most advanced (some practically moribund),

10 have been lost track of.
10 have died.
15 are clinically well.
12 have developed recurrences or metastases.
10 are still under X-ray treatment.

The question of the advisability of removing sections for microscopical examination was discussed. It has been discontinued by the essayists and the treatment instituted on a clinical examination. The possibility of traumatizing the parts and hastening metastases was given as the reason. The same factor enters in the introduction of the radium capsule into the cervical canal if such procedure calls for an unnecessary amount of trauma.

If the operative treatment is decided upon, every case should have pre-operative radium and X-ray treatment. In no case should this be delayed until after operation. The same factor enters here as discussed above, namely, truma and the implantation of metastases. Pre-operative radium and X-ray treatment is calculated to minimize this factor. Furthermore, larger doses of radium can be given with the uterus in the pelvis because it acts as a filter for the radium, minimizing the possibility of producing fistulae or irreparable damage to the bladder or rectum.

Some sort of definite improvement can be promised in almost every case regardless of the extent of the lesion.

Radium is the greatest palliative, that the physician has at his command, for pain, hemorrhage and odors.

Technique of application: Total dosage

3600 milligram hours (average). (This delivered in from three to six treatments within a week. Fifty milligrams of radium element is used, filtered with 1mm brass and catheter rubber held in place with a gauze pack, getting as much distance as possible between the radium and the bladder and rectum.

The preliminary preparation of the patient consists of S. S. enema and sodium bicarbonate douche. The bladder is emptied beforehand and emptied every three hours during the application of the radium, using a catheter if necessary.

Patient can be allowed to get up from bed during the intervals between radium applications. Can get up immediately after treatment. Very seldom are local or constitutional reactions seen. If they occur, bed rest is indicated. X-ray treatment is started as soon as possible after the radium is used.

In the treatment of the series of cases no deaths have occurred as a result of the treatment. No radium perforations have occurred. Careful technique in the application of the radium may be responsible for a minimum of complications.

Recurrences following the first application of radium are very resistant and do not respond well to second radium application. Very necessary to give enough the first time to completely eradicate the lesion, if possible.

A plea was made for earlier recognition of these lesions as this is the only hope of curing the lesion—early radical application of radium and roentgen rays.

Summary: Radium and X-rays are not specific agents in all cases, but they are the best agents at our command for the control of cancer of the cervix.

ST. LOUIS MEETING OF THE AMERICAN MEDICAL ASSOCIATION

THE arrangements of the St. Louis profession for the meeting places for the Session of the A. M. A., which is to be held in their city May 22-26 next, are singularly fortunate and convenient; never has the Association been so well favored in this respect. The district in which the meeting is to take place is at the west edge of the business section of the city, easily accessible from all directions by street car or otherwise and not more than fifteen minutes street car ride from the most distant hotel. The grouping of the meeting places is so compact that should one walk from the Registration Building (Moolah Temple) to the farthest hall it can be done in ten minutes or less; from section to section is a matter of from one to five minutes. The convenience of the location and arrangements of the different halls is more outstanding than in any other city in which the Association has met, and a decided improvement over the meeting in St. Louis, 1910.

The Registration office, Post Office and Commercial Exhibit is to be in the Moolah Temple (Shrine), on Lindell Boulevard two blocks west of Grand Avenue. At the other extremity of the group is the Odean, the home of the St. Louis Symphony Orchestra, with a main hall which seats 2,000, and several lesser halls. The main hall will be used for the opening session. Its acoustics are particularly good and suited to our purpose. The Sections on Practice of Medicine and of Diseases of Children meet here. In the assembly hall of the same building the Sections on Pharmacology and Therapeutics, and on Pathology and Physiology will meet. (It will be noted there has been an aim to foregather closely allied sections.) The Sheldon Memorial, on Washington Avenue, one-half block west of Grand Ave., will be the meeting place of the Sections of Ophthalmology, and Laryngology, Otology and Rhinology. The Section on Surgery, General and Abodminal, and on Obstetrics, Gynecology and Abdominal Surgery, will be held in the Third Baptist church on Grand Avenue. The Sections on Orthopedics and Nervous and Mental diseases, will meet in the Law School of the St. Louis University, on Lindell Avenue, a few steps west of Grand. The hall easily seats 500. Dermatology, Syphilis and Urology, will use the large Union Methodist church, on Delmar Avenue, just west of Grand, which meets every requirement. The Sections on Gastro-Enterology, Proctology and Preventive Medicine will use the large hall in the Musicians club on Pine Street, east of Grand Avenue, and next to the building of the St. Louis Medical Society, where the House of Delegates will hold its sessions. The Section on Stomatology is assigned to the assembly hall of St. Peters Parish House, one block west of Grand on Lindell. Immediately in this district will be found three of St. Louis's most important clubs, The St. Louis University and the Columbia. Restaurants catering to every grade of patronage are numerous in the district and precautions have been taken to insure that normal rates will prevail.

The St. Louis profession is preparing for an unusual attendance; hotel reservations are coming in rapidly, but it is purposed that even the late comer shall be comfortably housed. The wise traveler, however, makes his reservation as early as he finds it possible.

A special rate of one and one-half fare has been announced for the round trip, going and returning the same route. In order to secure the rate the purchaser must present an identification certificate to the ticket agent when buying the ticket. These may be obtained from Dr. A. R. Craig, Secretary, 535 N. Dearborn Street, Chicago. When making the request enclose a self-stamped envelope for reply.

Carpings of the Cynic

R. OCHSNER ON ANESTHETISTS 'N' EVERYTHING

he question of a choice of anesthetists—e or female—is being discussed rather ly from some quarters. Dr. A. J. Ochsner s if only drop-ether is employed he thinks an anesthetic given by a nurse of fair ning is both safer and better than if given an intern or physician. The reason is, he es, that only nurses with extraordinary gment are selected; the entire attention of nurse would be concentrated upon this k during the entire operation, and that e does not have to employ useless or dan-ous methods to prove or maintain the ortance of having the anesthetic given by pecialist."

h, boy!

esides, Dr. Ochsner goes on to say, in t cases the specialist in anesthesia has sen this field because of some handicap lack of ability or judgment he could not eed in the practice of medicine or sur-y. "While the women anesthetists, as a , are usually capable persons."

ossibly the doctor's male anesthetist was oor chauffeur!

nyway, it seems the doctor thinks a good sthetist is not a gentleman.

he question of the anesthetist:—where to the anesthetic? In the patient's room? the elevator and down the corridor? or the poorly ventilated anesthetic room? or the operating room? is still an unsettled stion with some.

)r. Ochsner thinks the first selection has n discarded because of necessary attention the transfer, prolonging the anesthesia, the bringing of the trappings and gas ack into the patient's room may produce vous shock.

. M. Waters (Jr. Ia. State Med. Soc. Dec.) states that the anesthetist should visit patient the night before and ascertain the rehensive state of same, and if it hangs r to the next morning that a hypodermic uld fittingly be given before the operation. the blood pressure, he says that if the pulse ssure exceeds the diastolic pressure, or if ulse pressure is less than 20, "The sur-n can doubtlessly be persuaded to postpone operation."

Moreover, Dr. Waters thinks, it is the anes-tist's duty after the operation to see that patient is started to his room covered with quantities of blankets on a warm cot, hot-water bags on it, to go to his room and see that things are done, that he takes no risk of inhaling his vomit and that a nurse is in attendance. He thinks that many if not all cases of "anesthetic pneumonia" could be avoided if the anesthetists were thorough in the preanesthetic examinations and throughout the unconsciousness. He says beginning pneumonias are sometimes operated on for abdominal lesions and are thus responsible for many cases of postanesthetic pneumonia.

Dr. Ochsner thinks these points of pre- and post-operative care and treatment belong to the surgeon and not to the anesthetist and that it would be foolish to relieve the surgeon of this responsibility.

So there, boys! go back to your gas bags, look to your laurels, and be good.

—Harry Nelson Jennett.

Premedicated Alcohol Premeditated Graft

THERE are a lot of fool measures started in Washington and one of them is a bill to permit a premedicated alcohol to go tax free. The first question is, who will be benefited by it? In this case the only industries which could even tolerate it, much less be benefited by it, are patent medicine men, and those who use only one or two combinations of alcohol. To such men there would be immense profit, while to the broad field of pharmacy, including retail trade and manufacturers, the burden would be intolerable. They would be under the necessity of stocking a great variety of alcohols at a terrible outlay of capital. What is needed at Washington is a Solomon, or a committee of broadly versed men to whom such bills could be referred, which body could in turn refer such bills to the proper scientific department of the government to be weighed as to their justice, economy and desirability, concerning the body politic of the American people. It is hoped the medical and pharmaceutical professions will awaken to the injustice of such a bill as the one suggested—a measure to benefit a very small class of citizens at the expense and inconvenience of two large guilds, which are already embarrassed by too much governmental regulation. It is to be hoped doctors and druggists will write their representatives in Congress to prevent the imposition of another handicap to business. There are already too many of them.

J. M. Bell.

Doctor, make your reservation at Central Hotel, Jefferson City, for ing of the Missouri State Medical May 2, 3 and 4.

tailure in
rest.—George
ed; it needs sym-

The Melting Pot

¶ "The nervous system controls the blood pressure, not the heart; the heart is a factor."

¶ Is the curse of the modern home today rooted in the indulgence of the parents in the training of their children?

¶ "They say" many lost their arms, and a few legs, from vaccination. Personally, I have never known of any one or heard directly of any one that was ever injured or deformed by vaccination. But I have known many to die of smallpox.

A Record Case

"Times have changed," said the bachelor..

"What now?"

"Just called on a married couple and saw a baby being put to sleep by a lullaby played on a graphophone."—Louisville Courier-Journal.

'Snuthing. When baby gets sick they put on one of Mrs. Eddy's records.

¶ "Here is a scientist who has discovered a serum that gives you all the symptoms of a hard cold."

"Well, what of it?"

"What of it? Why, man! one shot of it will get you a prescription anywhere."

¶ Young lady (who has just been operated on for Appendicitis)—"Oh! doctor, do you think the scar will show?"

Doctor—"It will be no great sight in a few years."

¶ Vaccination has now reached the successful stage that without reservation it should be done for all school children against smallpox, typhoid fever, diptheria, and (Miller) whooping cough.

¶ The morbidity reports show the number of people reported sick or afflicted with disease; the mortality reports show the number who die. Last week the report in a certain city showed, "Pneumonia, 4 cases; deaths, 8."

—This is a fast age.

a..
iden.
from L
enclose
silver-arhphenamine is a distinct
is a stronger and more potent anti-
It should be administered with

Gastro-Enterology

JNO. M. BELL, M. D.

SYPHILIS OF STOMACH

(Smithie's Clinic)

¶ About 5 per cent of all chronic, calloused peptic ulcers, specially those resisting recognized forms of treatment, are due to the spirochete of syphilis.

¶ Between 2 and 3 per cent of all tumors primarily arising in the walls of the stomach represent visceral manifestations of lues in its tertiary stage.

¶ For gastric gumma—every sixth day an intraveneous injection of .06 gm. of salvarsan, until eight injections are given—then a respite for three months. In the interval K 1 10 gr. three times a day, gradually increased to 30 gr. three times a day.

¶ During the last four years more cases of gastric dues have been observed and tabulated than in three decades previously. This has been due to more general use of serologic tests in differential diagnosis of intra abdominal complaint and t reontgen studies.

¶ In a series of thirty-five cases thus affected there were twenty-two men and thirteen women. Minimum age was 19 years, maximum 65 years. In this group were nine cases with no history suggestive of lues, but the Wasserman tests were positive. Such cases present the same general symptoms of ulcer, and between attacks are comfortable even without treatment, just as the average ulcer case goes. so that without a clear history, or a serologic test differentiation is quite impossible.

¶ Persistent fifteen-hour retention was observed in eight cases. Benzidin reaction in the stool for occult blood was positive in four cases. Holff-Junghans test was positive in seven cases. In only five cases was hydrochloric acid absent. Lactic acid was present in three cases.

¶ Inasmuch as the disease may continue for years and manifest itself only by periodic attacks of digestive disturbance one must be cautious about speaking of a positive cure. Of this series five cases were free from symptoms for the following year—seven cases not benefited, twenty-three cases apparently relieved of all gastric distress.

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

PHYSIOTHERAPEUTIC WEEK IN KANSAS CITY, APRIL 17-21

STUFFED CAPSULES

✣ ✣ ✣ ✣

Have courage and determination and if you have ideals try to put them into being.

✣ ✣ ✣ ✣

Glass filters are now being used in deep roentgenotherapy in malignant disease. It is said that glass has approximately the same filter value as aluminum.

✣ ✣ ✣ ✣

There is nothing in physical therapeutics that the regular physician need apologize for but the most of us should apologize for being ignorant of the possibilities of Measures other than drugs in favorably influencing the many distressing conditions which afflict mankind.

✣ ✣ ✣ ✣

Diathermy is an efficient jugulator of acute respiratory affections if employed during the first 24 hours of the disease. Why? Because the total amount of blood is increased, thereby increasing the number of phagocytes.

✣ ✣ ✣ ✣

There is no other means at the command of the physician so potent in correcting deranged metabolism as the high-frequency current.

✣ ✣ ✣ ✣

Salt solution is more or less an insulator of high-frequency currents. Salt pads underneath electrodes not only modify the character of the current, but decrease its strength.

✣ ✣ ✣ ✣

Germs may eventually destroy the world.

✣ ✣ ✣ ✣

Leukoplakia buccalis is amenable to desiccation.

✣ ✣ ✣ ✣

Canned auscultatory, percussion and heart sounds are becoming as popular as canned beans in time of war.

✣ ✣ ✣ ✣

There are lots of things waiting to be done in physiotherapy, can you do them?

✣ ✣ ✣ ✣

"A pessimist is a pill who is seasick during the entire voyage of life."

✣ ✣ ✣ ✣

Diathermy produces marked analgesic effects and relieves all kinds of pain.

✣ ✣ ✣ ✣

He who can make a program in human endeavor and carry it out is a success.

✣ ✣ ✣ ✣

Diathermy powerfully stimulates the secretion of glandular organs, consequently it should not be applied to the thyroid in hyperthyroidism.

✣ ✣ ✣ ✣

The best way to stop a quack is to deprive the duck of his feathers.

✣ ✣ ✣ ✣

There can be no greater satisfaction experienced by the physician than that of being able to make a discovery of something that will alleviate human sufferings,

In Memorium

MRS. O. C. GEBHART

One of the most ideally beautiful marital affinities has been recently severed by the death of Mrs. Emily Davis Gebhart, wife of Dr. O. C. Gebhart of St. Joseph.

Following the birth of her son Davis, while the doctor was in service in France in 1917, a severe endocarditis developed, which persisted until her death, March 20. Mrs. Gebhart was the daughter of the late Frank Davis, patriarch of Stock Yards Commission firms, a man marked and beloved for his wisdom, honesty and upright business dealing, throughout all Northwest Missouri.

Dr. Gebhart spared much time from his professional work to be at home. He was devoted to his family. Mrs. Gebhart enjoyed the friendship of a very large circle of admirers, due to her amiability and charming personality. She was an ideal wife and mother.

She was laid to rest in Mt. Mora cemetery, March 23, under a perfect shower of spring flowers, attended by her family and nearest friends, under the beautiful ministry of Rev. John Caskey, her pastor.

J. M. B.

GOD'S AMEN!

To Joseph MacDonald, Jr.. M. D.

It cannot be that he has passed into the Land-of-the-Far-Away;
This friend of mine whose hand I clasped—and talked with yesterday!
I see him now, his face aflame, glowing with joy to be again
Able to work and play the game, even as other men.

All he asked was to play his part, to finish the work he craved to do,
Keeping faith with a loyal heart, always staunch and true
And so he lived. But who can tell how he suffered with courage grim,
Waiting the Call he knew full well was bound to come to him.

Other men would have been dismayed, crushed by the weight of doubt and fear;
But he was a soldier unafraid, even tho death was near.
Brave and fearless, he did not shirk, but gave himself to his fellowmen,
Asking naught but the boon of work, 'til God should say "Amen."

God's "Amen!" I would ask no more than to know I had as surely won
The right to hear, when my task is o'er, the Master say "Well Done!"

—Dr. H. Edwin Lewis, in American Medicine.

The only failure a man ought to fear is failure in cleaving to the purpose he sees to be best.—George Eliot.

¶¶ Human nature has never changed; it needs sympathy and encouragement.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald

and Electro-Therapist

Incorporating the

Kansas City Medical Index-Lancet

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Vol. LXI APRIL 15, 1922 No. 4

The Editors' Forum

Two Viewpoints of Evolution

RECENTLY educators at Chicago denounced W. J. Bryan as a medievalist, and severely criticized him for his opposition to the teaching of evolution in the public schools. About the same day Prof. Courtiers of Paris, declared publicly that man was a quadruped, and attributed all his ills to the fact that he no longer walked on all fours, that there would be no further disease of liver, kidneys, or intestine or stomach, if man resumed his quadruped aspect.

Most men today, even the evolutionists, take God at His word and believe that man was created in His own image, even if they reject the Bible at large. They admit this one creation. Yet the evolutionary school now and then brings to light an old skull from some of the deeper geologic strata, more or less disfigured—a cave dweller, guerilla—and exhibit great glee, in that they are approaching the "missing link." The question then comes up, what sort of a man did God create? Distorted, inhuman, ape-like, repulsive? Following their arguments the man God created in his own image must have been a deplora creature; a creation not in harmony with vine might, power, wisdom. I believe man God created was the most perfect in all creation; if he has become altered dur time, or departs from that likeness today, has degenerated. The greatest scientist day are accepting the book of Genesis in to

The teaching of Darwin's evolution sho have no place in the public schools. Acc ing to statistics, there are forty millions people in this country who believe that tea ing the Bible instead of evolution in the p lic schools will make better men and wom Why do they not assert themselves and so?

J. M. B

Western Electro Therapeutic Association

THE committee on general arrangeme for this meeting reports plans all c pleted for the fourth annual session to held in the Little Theatre, April 20-21, un the presidency of Dr. Curran Pope, of Lo ville. Members and others who contempl attending this meeting, should make their h reservations without delay as a large atte ance is anticipated.

Dr. B. B. Grover's school of Electro-T apy, will hold its sessions on the three d preceding our meeting, announcement which will be found on another page.

On Wednesday evening, at the Little Th tre, Dr. A. D. Willmoth, of Louisville, Dr. D. T. Quigley, of Omaha, will give a v interesting moving picture exhibit on "C cer." This meeting will be free to all, open to the public.

The banquet will be held, as usual, Thursday evening at the City Club, an number of distinguished speakers will be the program.

Among those who will present papers m be mentioned: Drs. James T. Case, Ba Creek; A. J. Pacini, Washington; T. Howar Plank, Chicago; Harry Bowing, Mayo Clinic E. H. Skinner, Kansas City; Lynne B. Green Kansas City; Surgeon Charles Fitzsimmons U. S. Veteran's Hospital No. 67; Frederic H. Morse, Boston; William L. Ross, Omaha Dr. Frank C. Fuller, Leavenworth, Kas., an others

One of the important features of this con vention will be the exhibit hall, in which al of the leading manufacturers have secure space for the exhibition of the latest improve ments in equipment. The exhibition alon will be well worth a trip to Kansas City. Mak your plans to attend.

Necrological



DOCTOR REGINALD HUBER MEADE

Born March 19, 1873; died March 10, 1922.

The extensive friendships of Doctor Meade and the sincerity of the mourning are pre-eminent in this record of his passing. The readers of this journal know him from many angles of contact. It is doubtful if any physician ever had more contacts. In every contact, whether medical, civic or friendly, Doctor Meade became a constructive factor. For instance, at his death he was president of the Medical Veterans of the 89th Division; Chef de Guerre of the Societe des 40 Hommes et 8 Chevaux; vice-commander of the American Legion Bland Post and Medical Consultant to the Veterans' Bureau at Kansas City. It surely takes a man of wonderful friendliness, professional ability and executive capacity to achieve these honors of trust and leadership.

Doctor Meade was only 49 years of age at his death. He had been in practice for 25 years. He practiced at Great Bend, Kas., for 15 years, where he not only attained the limits of professional practice, but entered into civic activities and fraternal orders quite generously. He took all the degrees in Masonry to the limits of the York and Scottish rites and the Shrine. He was an exalted ruler of the Elks at Great Bend.

His medical life was equally full of attainment. He enjoyed a splendid personal following and accomplished much surgery. He was upon the staff of four leading Kansas City hospitals: St. Luke's, St. Joseph's, St. Margaret's and Kansas City General. He was consultant to the Veterans' Bureau and to the local Veterans' Hospital No. 11. He could accomplish so much in each day's time that these places saw him at work constantly.

Medical societies found a champion in Doctor Meade. Naturally he became a member of the local, state and American Medical Associations. He was an early Fellow of the American College of Surgeons. He was a delegate to the Missouri State Association from Jackson County. But he will be known better locally as a Past President of the Kansas City Academy of Medicine, a position of no mean honor in a society of professional attainment and limited membership. He was a member of the two sectional societies which focus at Kansas City, the Medical Society of the Southwest and the Medical Society of the Missouri Valley.

Doctor Meade's war service record was meritor. He went to the Fort Riley Officers' School and became Regimental Surgeon of the 354th Infantry with rank as Major. He was with the 89th Division throughout the St. Miheil, Muese and Argonne offensives and was cited for meritorious service. He was gassed upon September 26, 1918, but remained on duty until after the Armistice.

Only a few knew of the diabetic cloud which constantly overshadowed Doctor Meade's daily existence. In spite of this constant menace he lead an active and eventful career, perhaps more so than any other physician in our community. These are wonderful things to engage our admiration in his life. This persistent ambition in the face of a physical handicap is of worthy note.

Doctor Meade leaves a wife and three children. His oldest son was overseas with Base Hospital No. 28.

The funeral was from St. George's Episcopal church, Kansas City, upon Sunday, March 12, 1922. Although the attendance was limited to his friends, the church would not hold the hosts. It was not a military funeral but a simple service of great sincerity and devotion. The Bland Post and The 40 Hommes' Voiture had a memorial service with addresses upon March 14, 1922.

And thus do we record the passing of a splendid physician, a generous friend, a devoted father and soldierly citizen.

—E. H. Skinner.

DR. T. N. BOGART

Dr. T. N. Bogart, formerly house physician and part owner of the Elms hotel, was found dead in his office in Excelsior Springs, April 29th, by Dr. J. E. Baird, his brother-in-law. The body was lying on a lounge, fully dressed, and the office had been locked on the inside. A coroner's inquest found death was due to apoplexy.

Dr. Bogart was 54 years old. He is survived by his widow, Mrs. Entie Bogart. A daughter, Sadine, died three years ago. Dr. Bogart was born in Ray County and lived in Excelsior Springs most of his life. He was a graduate of the Marion Sims university in St. Louis and had studied extensively abroad.

¶ The Western Electro-Therapeutic Association ¶

Organized in Kansas City on May 8, 1919, for the purpose of cultivating and promoting knowledge in whatever relates to the scientific application of electricity and other physical measures in medicine and surgery.

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W. P. Patterson, M.D. Springfield, Mo.

The fourth annual meeting will be held at Kansas City, Mo., April 20, 21, 1922

President's Message

UP-TO-DATE medical men are beginning to awaken to the crying need of constantly bettering and improving their knowledge of medicine and medical subjects. This can best be obtained through medical meetings in which ideas are exchanged on subjects old, and new thoughts given on subjects fresh and novel. Meeting with one's professional brethren has the same effect upon a physician that the constant rolling of the rough stone in the bubbling brook; it wears off the sharp points and polishes up the dull places. With the fast growing work along physiotherapeutic lines, many new things are written of and discussed in medical societies that do not reach the practitioner for many months thereafter, and those who attend the association meetings thus gain information along the lines of their professional work many months ahead of their non- attending medical brother. As President of the Western Electro-therapeutic Association, I send you greetings to let you know that we will have a splendid program and the promise of the presence of "bright Lights" in all the domain of physical therapeutics, each of whom will bring to you a message in his particular line of work that you may learn in a very brief time what it has taken him probably many months to garner and prepare for your particular delectation. Come prepared for a medical treat, for the warm grasp of the kindly hand of brothership, and come prepared for that mingling of good fellows that really means so much to each and every one of us. I hope to see every one of the Association in attendance. Come prepared for a REAL good time.

—Curran Pope.

¶¶ A regular physician skilled in physical therapy is a valuable asset to any community.

"Tall Oaks From Little Acorns"

THE little Electrotherapeutic acorn which was planted in Kansas City in 1919 is rapidly becoming a towering oak, probably due to the fertile soil of the Missouri Valley.

The Western Electrotherapeutic Association has now taken a place in the great forest of physiotherapy. It has attained a high regard from other and older organizations and now commands the position of consultant in physiotherapeutic medicine.

The necessity of such organizations is obvious; but until the time comes that the regular profession is ready to break the shell of prejudice and recognize that physical measures are of importance in practice, such organizations as ours are needed.

In the language of political platforms, "we point with pride to our accomplishments." Hardly a day passes but what some advancement either in improved apparatus or technic of application is made and it behooves us to keep in step with these advancements. No one can attend these meetings without experiencing an inspiration as the mind becomes suddenly illuminated by thoughts of the things that can be accomplished. One's consciousness is awakened by induction through the influence imparted by the mere presence of others working in the same field. New thoughts occupy the mind and you go home and take up your work with renewed vigor in the consciousness of the possession of something real and definite that can be passed on for the benefit of your patients.

No physician can afford to miss the coming meeting. Men of national reputation will be present and discuss questions that are invaluable to all physicians. Allow me to urge you to drop your practice for one week and avail yourself of the knowledge to be gained on this occasion.

—Burton B. Grover.

A PHYSIOTHERAPEUTIC WEEK IN KANSAS CITY

At the Little Theater, April 17, 18, 19, 20, 21, 1922

WESTERN SCHOOL OF ELECTROTHERAPY

Fourth Session, April 17, 18, 19, 1922

INSTRUCTORS

Dr. B. B. Grover, Colorado Springs; Dr. Frederick H. Morse, Boston; Dr. T. Howard Plank, Chicago; Dr. A. J. Pacini, Washington; Dr. J. D. Gibson, Denver; Dr. H. C. Bennett.

Classes are now being formed. Number limited to those who register in advance.

Western Electrotherapeutic Association, Fourth Annual Meeting, April 20, 21

Banquet on Thursday evening. Speakers: Dr. Curran Pope (president), Dr. Jas. T. Case, Battle Creek, Mich.; Dr. H. H. Bowing, Mayo Clinic; Dr. A. D. Willmoth, Louisville, and others. The profession cordially invited to attend.

Send for programs and registration blank. Chas. Wood Fassett, M.D., Secretary, Kansas City, Mo.

THE WESTERN SCHOOL OF ELECTROTHERAPY will hold its Fourth Annual Session at the Little Theater, nsas City, April 17, 18, 19, 1922. Each pre- us session of the school has been an unalified success in the dissemination of inmation in the use of physical modalities in dicine, and this year promises to be better n ever.

Dr. Grover will lecture on the fundamentals electricity each morning at 10 o'clock. Every y from 2 to 5 o'clock will be devoted to ical demonstrations. Diseases and condias amenable to physiotherapy will be briefly cribed in which the physiological indicas for the use of the different modalities how and when to apply them will be fully plained. Demonstrations will be made on ical cases in so far as clinical material is ilable. In absence of material each step of atment technic will be fully explained with monstration of apparatus.

During the Clinical Sessions time will be ven for brief discussion of each demonstran.

Dr. A. J. Pacini, formerly in charge of the X-y Department of the United States Public alth Service, will be present during the ek and lecture on the uses of actinic rays in dicine. He will hold clinics for the demonation of this important modality in many eased conditions.

Dr. Frederick H. Morse, ex-president of the erican Electrotherapeutic Association and ll known authority in direct and sinusoidal rents, will be with us again this year and ve clinical demonstrations of these condins.

Dr. T. Howard Plank, one of the prominent workers in the American Electrotherapeutic Association and a recognized authority on actinic rays, will be with us again this year and give clinical demonstrations of high-frequency currents in surgery.

The Exhibit Hall will contain the latest equipment and will be well worth a trip to Kansas City.

For program and information, address Dr. Chas. Wood Fassett, 115 East Thirty-first St., Kansas City, Mo.

GOOD THINGS TO COME

Following is a partial list of original papers to appear in the Medical Herald:

"Shall We Operate on One Sided Senile Cataract," Dr. H. Gifford, Omaha.

"Fermentative Colitis," Dr. A. Sachs, Professor of Medicine, Creighton Medical College, Omaha.

'The Diagnosis of Gallstones," Dr. H. J. Lehnoff, Lincoln, Nebr.

"Observations on the Treatment of Fractures," Dr. Francis R. Holbrook, Des Moines, Iowa.

"The Cause and Prevention of Joint Stiffness After Fractures," Dr. H. Winnett Orr, Lincoln, Neb.

"Carcinoma of the Breast—With a Report of a Rare Case of Mastitis Carcinosa," Dr. Michael J. Ford, Omaha.

"The Preservation of Function in Joints after Fractures," Dr. John Prentiss Lord, Omaha, Neb.

"Local Anesthesia in Gall Bladder Surgery," Dr. Caryl Potter, St. Joseph, Mo.

"The Control of Gonorrhoea in Women," Dr. Palmer Findley, Omaha, Neb.

"Bacterial Relationship to Stone Formation," Dr. O. C. Morrison, Carroll, Iowa.

"Carcinoma of the Lung," Dr. E. A. Gummig, St. Joseph, Mo.

"The State Control of Veneral Diseases," Dr. P. H. Barthomew, A. A., surgeon U. S. P. H. S., Lincoln, Neb.

Society Scintillations

BUCHANAN COUNTY MEDICAL SOCIETY

The meeting, February 1, 1922, was called to order at 8:15 p. m. by President F. H. Ladd at the Chamber of Commerce, St. Joseph.

The application of J. Kangesser was referred to the censors.

The milk committee reported progress. Telegraphic authority has been received from the office of the National Milk Commission of the United States.

Dr. Kessler reported an incident of unethical conduct that had been called to his attention but did not give name of accused.

Motion by Dr. Beck that Dr. Kessler present the evidence in his possession, relative to unethical conduct of a member of this society, to the censors in due form. Seconded and carried.

Dr. Byrne read a paper, "Fracture of Vertebrae," and presented two patients who had accomplished perfect recovery following accidental injury. Discussion by Drs. Spencer, Beck, Chas. Geiger, Cook, Ravold and McGlothlan; closed by Dr. Byrne.

Paper by Dr. Cook, "Laceration of Cervix," was discussed by Drs. Conrad and Williams.

February 15th

The meeting was called to order at 8 p. m. by President F. H. Ladd.

Mr. Brown of the Physicians and Surgeons' Exchange was granted the floor and reported the telephone company has made a recent ruling that the Physicians and Surgeons' Exchange shall pay $1.00 per month for the interliner listing in the directory. The present charge is 25 cents. Mr. Brown proposes to discontinue the interliner and collect a 25 cent fee from each subscriber and use this money to pay for advertising space in daily papers.

Motion by Dr. A. L. Gray that a committee of three be appointed to confer with Mr. Brown relative to telephone contract with Physicians and Surgeons' Exchange and if necessary to confer with the management of the telephone company. Seconded by Dr. Timmerman; carried.

The president named for this committee Drs. A. L. Gray, W. T. Elam and L. Paul Forgrave.

Dr. G. T. Bloomer was elected a member of this society.

Motion by Dr. Byrne that a committee of three be appointed to interview the postmaster of St Joseph relative to mail service. Seconded by Dr Kessler; carried.

The president appointed for this committee Drs. J. I. Byrne, E. B. Kessler, A. B. McGlothlan.

Dr. Timmerman presented a pathological specimen and made a report of autopsy performed this date.

Dr. Toothaker read a paper, "Diphtheria," which was discussed by Drs. A. L. Gray, Carle, Meluney Shores, Elam, DeLamater and Ladd.

Dr. Robinson read a paper, "Industrial Plant Conditions," which was discussed by Drs. Mundy, Gunning, Packwood, DeLamater, Meluney and Kessler

OLIVER C. GEBHART, Secy.

ANOTHER CHANGE OF DATE

The date of the meeting of the Missouri State Medical Association has been changed since our last issue. May 2, 3 and 4 will be the dates, and Jefferson City the place.

The Kansas City Diagnostic and Therapeutic Clinic has been established with the object of furnishing under one roof as complete an Institution as medical science of today demands. It is equipped with the most modern apparatus for diagnosis and treatment and manned by a competent staff of specialists in their respective departments.

THE DEPARTMENT OF PHYSICAL DIAGNOSIS is under the direct supervision of Dr. I. J. Wolf, Professor of Medicine in the University of Kansas, formerly Professor of Medicine in the University Medical College.

CLINICAL LABORATORY is fully and adequately equipped so that all forms of examination that may be demanded, including urinalysis, gastric analysis, blood, blood chemistry, C 02 Alveolar tension, Wasserman Test, and the various bacteriological examinations can be promptly and accurately made. Dr. S. H. Richman, former pathologist of the Cook County Institutions, is in charge of this department.

We invite the co-operation of the profession and wish to assure it the fullest assistance in whatever capacity we may be of service. All cases referred to this clinic for examination are returned to their respective physicians with a full report of the findings and such recommendations as seem pertinent.

The laboratories endeavor to give accurate and prompt service whether it be in a simple urinalysis, a Wasserman, Metabolism rates Electro-cardiography.

THE THERAPEUTIC DEPARTMENT

This clinic has established a physio-therapeutic department, fully equipped, and offers to the profession such measures as may be found necessary to increase elimination, improve local and general circulation, produce hyperemia, sedation, stimulation and general tonic effects.

This institution is to be conducted along strictly ethical lines and solely for the benefit of the medical profession as an aid in the diagnosis and treatment of diseased conditions.

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NATIONAL T. B. MEETING

The eighteenth Annual meeting of the National Tuberculosis Association will be held in Washington, D. C., May 4, 5 and 6, 1922. The sessions will be held in the First Congregational church, corner of Tenth and G Street N. W. The annual meeting follows immediately after the Triennial Congress of Physicians and Surgeons, which meets in Washington May 2, 3 and 4.

A NEW ASSOCIATION

On February 17 the superintendents and executives of reputable hospitals in Missouri met in St. Louis to organize the Missouri Hospital Association. Dr. A. R. Warner of Chicago, Secretary of the American Hospital Association, was the guest of the meeting and assisted in making plans for a permanent organization. The association expects to affiliate with the American Hospital Association.

—The Insomnia of Women—In over-coming the sleeplessness of women, with whom the utmost care must be shown in choosing soporific agents, it has been shown that Pasadyne (Daniel) operates in a most satisfactory manner. It has a pronounced soothing effect upon the disturbed higher centers, and secures for the patient relief from the mental hyperactivity and then sleep. The sleep that follows the employment of Pasadyne (Daniel) is sound and refreshing and is not succeeded by a period of depression. Pasadyne (Daniel) has a distinct field of usefulness and it is those cases that respond to a comparatively small hypnotic dosage. It is safe and leaves no bad after-effect. Pasadyne(Daniel) is merely the concentrated tincture of passiflora incarnata. A sample bottle may be had by addressing the laboratory of John B. Daniel, Inc., Atlanta, Ga.

HYDRIODIDE OF PHENYLCINCHONINIC ACID

Iodine is alterative and antiseptic. Its use tends to speed oxidation and the rate of metabolism. Oxyl-Iodide, a synthetic product that contains 33 per cent iodine, is said to be an organic compound which is quickly assimulated, excretion being noted early. Oxyl-Iodide not only increases metabolism, we are told, but the phenylcinchoninic acid acts as an analgesic and antipyretic and increases the elimination of uric acid and urea by the kidneys. Rheumatism may be caused by various organisms, or by deranged metabolism. The patient, says Eli Lilly & Company, should be carefully examined for any foci infection which may be furnished the toxin causing the neuritis, myositis, or arthritis. Heat, rest, massage, opening the avenues of elimination after the source of the toxemia has been located and removed, giving Oxyl-Iodide to aid metabolism, and speed the elimination of nitrogenous products always gives improvement. Oxyl-Iodide is supplied by the trade in bottles of 40 and 500 three-grain tablets. Dose: 2 tablets t. i. d. p. c., with plenty of water. A special folder on Oxyl-Iodide awaits requests addressed to the Indianapolis office of Eli Lilly & Company.

WHAT DO YOU KNOW ABOUT THIS?

The old idea was that calomel was a hepatic only. The new idea is that calomel stimulates all the glands of internal secretion, with special affinity for the thyroid and suprarenals. Calomel got a bad name from its association with ignorance. There is no other one single agent that will combat as many toxins as calomel given in small doses, sufficient to stimulate the glands of internal secretion.—Delaware State Medical Journal.

The Management of an Infant's Diet

Constipation

Infants that have a fat intolerance as a result of being fed upon mixtures containing a high percentage of cow's milk fat may develop a condition of constipation of a most pronounced type. This appears, at first, to be most difficult to correct; yet a very simple adjustment of the diet will bring prompt relief. The proper procedure is to remove all of the cream from the milk to be used in preparing the diet and add an easily assimilable carbohydrate. This carbohydrate element should be free from starch and one that has a high point of assimilation, for it is important that a relatively high percentage be used in order to compensate for the heat and energy lost by removing the fat.

Mellin's Food

contains the carbohydrate—maltose—which answers the purpose, for maltose is utilized in larger amounts than any other carbohydrate. Successful results may therefore be obtained by preparing the modification with skimmed milk and at least four level tablespoonfuls of Mellin's Food to each pint of the food mixture.

Further details are given in a pamphlet which physicians may obtain upon request.

Mellin's Food Company, Boston, Mass.

Medical Melange

APPEALS FOR HELP

Christian Home Orphanage Facing Serious Situation

Readers of this paper will be pained to hear that the Christian Home Orphanage at Council Bluffs, Iowa, which was founded in 1882, and which cares for about five hundred destitute children and aged, dependent women annually, and which has received under its care scores of children from this state, is confronted with the most serious condition of its entire history, and that unless speedy and liberal help comes, disaster may be the result.

The close times have affected receipts at the Orphanage to an alarming extent, and the future welfare of the work is at stake.

The Home is appealing to the public to help it prevent this calamity, and, after nearly forty years of faithful service this paper feels that every reader should forward a generous contribution now to the Christian Home Orphanage, Council Bluffs, Iowa, in order that there may continue to be food and shelter for those little ones. Send these people something today, as prompt and liberal action is now vitally essential to the future existence of this great Orphanage.

Influenza Again—In many sections of the country influenza is again rampant. The infection on the whole is not so severe as in previous years, usually running a shorter and milder course. But the remedy that proved most effective in the past is the one to be applied to the present crop of cases, to-wit. Calcidin, the iodine-calcium combination for which we are indebted to The Abbott Laboratories, of Chicago. Against influenzal colds and respiratory ailments in general, nothing else succeeds so frequently, and no matter what the treatment, Calcidin should always have a part in it. When commenced early and persisted in, pneumonia is not likely to develop. This is not fiction nor mere surmise: It it a fact borne out by experience. And this suggests the question of prevention. What can be done? Chlorazene solution consistently applied to the nose and throat (as a spray or gargle) seems actually to prevent or abort the infection. The results following its use in certain large stores and factories during the worst of the epidemics, encourage this belief.

A Word for Antiseptics—About a decade ago one prominent gynecologist began to preach the unwisdom of the then prevailing tendency to operate upon almost any inflammatory condition of the genito-urinary tract in females. He pointed out that much could be accomplished in many cases by more conservative means, and he preached the doctrine very effectively of local treatment. Nor were his efforts in vain. Reaction followed and the influence of his teaching can be seen at the present day. There are many conditions in which operative interference is either unnecessary or impracticable. Much can be done by the use of well advised local treatment carefully carried out. In such conditions there is constant occasion to make us of antiphlogistic, astringent, antiseptic and often styptic combinations and for such purpose Micajah's Medicated Wafers, which were originated by a practical physician many years ago, will be found in every way satisfactory. The combination is such as to render it easily used. It does not produce irritation, but on the other hand is markedly soothing and healing. Its effects are promptly manifested and its use can be continued over sufficiently long periods to secure satisfactory results. Micajah's Wafers are ethically advertised to the medical profession only. They are not intended to be used as a cure-all, but simply as an adjuvant to other indicated treatment. They are easy of application and being readily soluble can be used either as such or in solution, or they may be powdered and used with the insuflator. Samples and literature of this product will be sent gratis to any physician on request to the makers, Micajah & Co., Warren Pa.

Endocreodin—The vein method of treating disease appeals strongly to the progressive, busy clinician confronted with diverse practical bedside conditions and striving earnestly to meet them in a rational and scientific manner and with a fair degree of certainty and rapidity. To such we suggest try Sodium Iodide and Guaiacol (Endocreodin) for the pain, cough and dyspnea of bronchitis, broncho-pneumonia and bronchitic asthma. Sodium Iodide liquifies mucous secretion, reduces the viscosity of the blood, increases leucocytosis and stimulates glandular activity. Guaiacol is a mild anesthetic and expectorant. The technic is simple and the results are certainly worth while.

This product may be had from druggists or from us, in ten mil ampoules, representing sodium iodide 1.5 gm (23 gr) guaiacol in 0.12 gm (2 gr). Dispensed in boxes of six. International Products Company of America, Inc., 121 Madison Ave., New York.

A NEW ORGANIC MERCURIAL

Mercury is one of the drugs that have survived misunderstanding and abuse by the sheer force of inherent therapeutic merit. For a time after salvarsan was discovered it looked as though the days of mercury as an antiluetic were over, but there has been much disillusion on this point in recent years, and mercury is now as strongly entrenched in professional confidence as it ever was—more so, in fact ,as a result of developments in pharmaceutical manufacturing methods which have given us improved mercurial compounds.

The latest of these is Mercurosal, a Parke, Davis & Co. product which is supplied in single intramuscular and intravenous doses in glass tubes ready to be made up into aqueous solutions for injection.

Mercurosal is said to possess the unique distinction of being absolutely bland in contact with the delicate tissues of the venous walls; and intramuscularly it is said to cause very little pain.

Write to Parke, Davis & Co. for literature on Mercurosal.

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MEDICINE — SURGERY — PHYSIOTHERAPY — X-RAY

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Incorporating
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An Independent Monthly Magazine

Vol. XLI MAY, 1922 No. 5

Original Contributions
(EXCLUSIVELY FOR THE MEDICAL HERALD)

THE WEAKNESS AND STRENGTH OF PHYSIOTHERAPY

By CURRAN POPE, M.D., Louisville, Ky.

IT IS meet and proper to first express to you my very great appreciation of the honor you have conferred, by electing me to the presidency of this association. It has been a source of pleasure to serve you and to strive in every way to upbuild the association, further its growth and make it a REAL representative body of the particular domain of medicine in which it works.

For over three decades I have used physical measures in the practice of my profession. I have seen the rise and the fall of many measures, and feel that this long service enables me to pass somewhat in review the varying phases through which these measures have passed, and not wherein I believe error has arisen and mistakes made, and to see clearly and discerningly the solid and substantial basis upon which we have and we are building for these remedial measures.

I started at the time of empirical usage, under the tutelage of such distinguished men as Winternitz, Erb, Benedict, Baruch, Beard and Rockwell, and since then have seen the rise and fall of many "isms," and the survival of useful measures. In those early days, Winternitz had wrested hydrotherapy from the tentacles of quackery and inaccuracy, and had just placed it upon a real scientific basis as a result of his monumental labors, the first foundation, aye, the cornerstone of a scientific measure, yet to be fully appreciated or used, but steadily progressing toward its true destiny.

Presidential address, delivered before the Western Electrotherapeutic Association, at Kansas City, Mo., April 20th, 1922.

Well do I remember similar work in the use of massage, as enunciated by our distinguished confreres, S. Wier Mitchell and Douglas Graham, both of whom possessed scientific vision and both of whom did much to gain for this measure its well deserved reputation, one in neurology, the other in general medicine.

Those hardy pioneers, Beard & Rockwell, had much to contend with in those early days of cerebral galvanization, and general faradization, but in spite of all opposition and ridicule, they laid a foundation stone upon which to erect a sound and secure edifice. One (Rockwell) yet lives to view with pride the growth and usefulness of the early infant, for whom he so tenderly cared.

In those days the general profession shrugged its shoulders, laughed and went on or indulged in a wild pyrotechnic of abuse against this "quackery within the profession." But as the infant grew, and grew, and, like a little Hercules, performed prodigies of valor and left in his wake many restored patients, the attacks lessened some, but the sneer that won't come off, remained.

As medicine changed its fashions and its methods, and as the great schools of mental therapeutics developed, first with my teacher Charcot, then Bernheim and later Janet and many others, so did the attacks on physiotherapeutics and especially electrotherapeutics, subtly change and acknowledging that "some" results were obtained, the unbelievers stated flatly that these were in no sense PHYSICAL, despite the mechanical effects of massage, vibration, the wave current, faradism, etc., in no sense CHEMICAL, despite visible action of the galvanic current, in no sense THERMAL despite plainly increased heat, felt even to the touch, but all, ALL, were due to **suggestion,** and this is held today by many who are unaware of the real truths won by these measures.

Alas! however, for the deluded "suggestionists," an era was opening that was to the initiated the first blare of trumphet and roll of drum, the rising sun of the fatal day of Waterloo. I refer to the electron. The dis-

covery of the Crookes tube, the work of Roentgen, the light of the vacuum tube that did not fail, rung out the everlasting death knell of pure suggestion, and placed human electrotherapy on a sound and lasting basis. The electrical engineer and scientist by his knowledge of electrons and vibrations, allows you and me to send messages through the air thousands of miles, to sit at home and hear an orchestra 500 miles away, and enjoy marvels that would have been thought the ravings of a diseased mind twenty years ago.

And the human body is easily traversed by these electrons, its tissues bombarded and results physiological and chemical thereby obtained. In medicine the uses of the electron have just begun, the surface has only been rubbed, not scratched even. What the future may bring forth, neither you nor I can forecast, for were we to predict, I am afraid it would sound like a phantasmagoric dream of the lotus, poppy or hashish eater.

No medical man living could have told on that bright August morning, when the world was thunder-struck by war's proclamation, that in embryo, germinating, was the greatest living demonstration for physical therapeutics that medicine has ever known. Through the long months and years of carnage, through the vale of tears and suffering, came a long line of the maimed, the halt, the torn and suffering who were, through their agonies to teach the profession, those whose eyes and ears, whose minds and bodies were open and alert the therapeutic value of physiotherapy. And this world war that taught us so much in so many ways, was to at last break down the barriers of years and place these measures where they belong, a means to a definite end, the restoration of the human body to usefulness and efficiency, freed from encumbering disability, disorder and disease.

And wherein lies the weakness of physiotherapy?

If I were to try to answer that question singly, succently and to the point, I would say within ourselves. That we, as practitioners, really represent the weaknesses.

The first really fundamental weakness I would call your attention to, is the mistake of exalting physiotherapeutics into a single demain of medicine capable of treating and handling each and every form of disorder and disease. The really modern medical man must first of all be a good diagnostician and learn all he can about the man or woman that is given into his care for treatment. When I say learn all he can about a case, I mean the making of a complete diagnostic investigation of the human problem.

To make clear what I mean, I will state that the plan I have pursued, with changes according to the advance of medicine, is as follows: First, a very careful and detailed history of the case; its forebears, the diseases from which it has suffered, its symptoms, the symptoms of disorder in each bodily system (cardiac, pulmonary, gastro-intestinal, hepatic, etc) and all extraneous facts useful in getting a clear conception of the clinical aspect of the case.

The patient is next subjected to a rigorous neurologico-psychiatric investigation, its extent depending on the nature of the case, and following this a physical examination of the body ad seriatum. If any special trouble (such as opthalmic, otologic or dental) the patient is sent to a competent man for examination of these organs and functions.

The case is then submitted to the laboratory technicians: the radiologist, the serologist, etc. etc., that is to say, the X-ray man examines teeth, chest, heart, lungs, spine and gastro-intestinal tract, while the laboratory technicians test the blood, blood serum, urine, gastric juice fractionally, examine feces, test blood pressure and drain the gall bladder after the Lyon-Meltzer method. Finally an exhaustive study (if requiring same) is made of the colon by inspection, by the bacteriologic examinations and by a study of the feces under special diets.

You will say this is the rigid examination of a modern clinic. I answer yes, and by its work places the anatomical pathological and functional status of your patient clearly and distinctly before you and removes the physician and the patient from the very weak position of treating and having treated "symptoms." You will now be treating the patient and not a symptom here and there. You will perhaps say the family physician and the physio-therapeutist who does not possess a clinic, cannot do this; that is true. But if he wishes to do so he can send his patient to such a clinic, have a diagnosis made and have a suggestive line of physiotherapy laid out for him as will aid in his restoring his patient to health again, if this is possible. So that we may say that the greatest weakness of the usual use of physiotherapy can be and should be remedied in this manner.

Another weakness that shrieks to heaven, is the attempt on the part of physicians to "give treatments" without having any knowledge of the physics, the physiciological, the mechanical, the chemical or the thermic properties of these measures, or the special action of certain measures upon special organs. It is the old story of such and such a measure being "good," in such and such a case without any regard as to whether the measure is suitable

to the particular patient, as to whether the patient's state might not be met better by other measures than physiotherapy. In such a case I am afraid the patient has fallen into the hands of a medical Procrustes. This Greek mythological character kept an inn and had a set of iron beds of a certain size. The traveller, if too long, had his legs cut off; if he were too short he was stretched on a rack until he fit the bed. Let us not in our weaknesses be medical Procrustes, if not for our own sakes, at least for the patient.

Another weakness is education by the physiotherapeutic detail man or representative. He is a sauve, charming, bright and persuasive individual who "puts you wise" to many points and is helpful, provided you have laid your scholastic foundations upon the bedrock of knowledge of your patient and your remedy. He is always welcome even to the old and blase physiotherapeutist. But again I repeat—know thyself, thy patient and thy remedial measures. Then the electrical engineer, the electrical representative and others may aid you in many ways. The old trail westward started from Kansas City. It wound sinuously over the praries for countless miles and from here caravans of white topped canvas wagons, with the teams of oxen and fore and side riders started with determined men and women and going to a land of promise, rich in milk and honey, flavored and tinctured with the romance of the great west. And along that trail mile after mile might be seen the burnt ruins of wagons, the bleached and buzzard pecked bones of oxen and sometimes those of men, all a silent testimony to the failure of those roseate hued dreams that had their starting point out of this great Missouri river city. And I might say here that there are the bones and skeletons, the ruins of wagons, in ten thousand offices in America where static machines, "batteries," X-ray machines, mechanical apparatus bear silent and eloquent testimony to the frailty and weakness of human nature. Had these men really educated themselves in the domain of physiotherapy these "suggestive therapeutic" machines that "look good in the office and "impress" the patient, would like the wheels of industry be turning and grinding out the grist of usefulness to suffering humanity. If I wish to enter a new therapeutic field of any kind, I study it first and then go to the fountain head and learn directly all about it so that I can know the measure and employ same correctly. When you have real knowledge you can safely and certainly purchase the necessary apparatus and then the representative becomes of genuine help.

Another weakness of physiotherapeutics is a failure to read and study either the literature of journals or text books. This is true in a certain sense of medical men in general. If you specialize always read general medicine and never lose your broad touch therewith. If a medical man really makes up his mind to read and study it is sometimes astonishing how much he can read in odd moments. Always keep a medical journal "handy" and pick it up and read it carefully every chance you get. If you are so busy you can't read you need to employ some help, for reading and study constitute an essential necessity of every physician, high and low, general practitioner and specialist. It is this constant study and reading that tends to round out and perfect the man. Study physiology and its shady side pathology; all help to build a man who sees more clearly, who becomes more discriminating and who practices more scientifically. Every brother physician has a message; meet him—hear him. Become an "association" man and attend many medical meetings. It is the best time and money you can spend. The busier you get the oftener you must go for your problems then are many and of wide variation. This will help to remove your weaknesses.

And what is the strength of physiotherapy?

The power of the measures to produce results in the hands of those who know how to use them rightly and properly. That is to say that these measures carefully and properly used **inherently** possess the power to produce certain physical, chemical and physiological processes that are corrective of disease and disorder, and bring about changes in the bodily structures and functions, that are possessed by no other known group of remedial measures.

Since the establishment of the electron hypothesis, and as nearly as possible this seems a proven fact so generally accepted is it by scientists of the highest attainments, we know that the results obtained are truly physical, that is to say, due to the passage of electrons through the human body. In their bombardment of the tissues, possibly in varying vibrations and velocities certain results are obtained that are fundamentally encompassed by the terms mechanical, thermic and chemical results capable of visualization or demonstrable by instrumental or chemical tests. It seems to me that no one but the grossly ignorant, the unknowing and the mentally defective would deny today these patent facts and demonstrable truths.

But three decades ago we did not have such a firm foundation. There was a tendency to make of these measures a pariah of medicine. But those who used them, who thoughtfully

studied their effects, noticed that they brought about clinical results far beyond the most sanguine expectations. The fact remained, but as yet the **raison d'etre** was not forthcoming. Well can I remember the days of my youth in medicine when I stood or sat by and saw the, to me, wondrous changes that took place in seemingly hopeless cases under the skillful manipulation of physiotherapeutics by those Nestors of medicine, Baruch, Beard, Rockwell; Benedict, Erb and many others with whom it was my wondrous good fortune to be brought in medical communion. To me reared and trained in the school of "pure" (?) surgical and drug therapy, this was indeed a rude awakening for I had never heard a single mention of these measures of therapy.

We all realize fully, I trust, the marvelous field of surgery, the wonderful work and uses of this branch of medicine, and the utter uselessness of physiotherapy to enter in competition with surgery in a case that is purely and strictly surgical, and this should never be done. There is a borderline where the two meet, and where unconflicting and harmoniously the two—surgery and physiotherapy in the broad sense—must work together. This is noticeably true in many cases of the X-ray and Radium, but I believe that here the two men, surgeon and physiotherapeutist, must work hand in hand to attain the best results for the sick and suffering.

The strength of physiotherapy, I am constrained to believe, is gaining day by day. The marvelous advances made in the vacuum tube gives promise of much for the medicine of the future. Medicine today is turning the tables and steadily encroaching upon the field of surgery. In this regaining of the field of medical service, I believe physio-therapeutic measures will more and more come into their own and assume a power and a value far ahead of any single group of remedial measures.

I believe I can say without fear of contradition, that no mere medicinal preparation or drug can for one moment approach the powerful physiological responses brought about by a warm (or hot) **hydriatic** application followed by a cold brief, mechanical application. If you who are in health or who are ailing, doubt this statement, try the wonderfully invigorating influence of such a treatment and awaken to the power for good of such a measure. Nor can a single drug produce the tissue healing, sedative and pain-relieving effects of **diathermy.** Where in medicine are the chemicals that within the human organism can bring about the manifold chemical, ionic and physiological changes of the **galvanic** current.? Where in the broad range of medicinal therapy is a single drug that will so vibrate and massage and sedate as the **Static wave** current? These questions I propound merely to accentuate the fact that you are dealing with weapons that are strong, weapons that are in reality powerful, but weapons capable inherently of their own power to produce results far beyond the ordinary therapeutic activities of single measures.

But, do not infer from what I have said that I do not believe in medicinal and chemical therapy, for I do and use medicines constantly, and I hope with some degree of intelligence. And here I pause to call your attention to some interesting and easily demonstrable facts that form another basic strength or physical therapeutics. Please note this and note it well. Physiotherapy can and does oftentimes do away with some of the disagreeable effects of drugs, and in the vast majority of instances, enhances considerably the physiological activity and specific actions of medicines upon the human economy. Here alone is a field of wide influence, a tower of strength, enabling us to use smaller doses, to secure quicker results and more certainly help our patients. Remember that first, last and all the time you are physicians, mentally morally and medically pledged to do the very best for your patient, and that it were unwise to be narrow, dogmatic and prejudiced in favor of a single field in therapeutics. Likewise realize that to be narrow minded is to be guilty of the very same crime or disease from which the vast majority of medical men are suffering today, in their beliefs and attitude to physiotherapy.

The strength of physiotherapy must be in finality in the medical men who practice it. After all no matter how strong a measure of therapy may be, it must carry with it honor and truth. Without these it will degenerate. Do not weaken these measures by attempting the impossible. Do not **"try"** out **"a treatment"** when you **know,** or **should know** that it is useless. This is essentially a trait all should possess, **openness** and **common honesty.** And do you not here realize that this is not an empirical branch of medicine any longer, but a scientific one that requires medical men who use it to be good and real diagnosticians, men who know their pathology and pathological anatomy, and apply their knowledge of physiothe apeutic action to the case in hand, and who are unwilling to **try this or that treatment, hoping it will do good or because they have been told that "it" is good for that disease.** Such methods verge on quackery, for remember, quackery does not consist in the measure **per-se,** but in how you use it. There is not a known **remedy per-**

haps, that the quacks do not use, but what the profession employs, but, Oh! the difference. "Every little remedy has uses of its own."

I cannot inflict you with too long an address for were I to follow my inclinations, we might be here into the wee hours of the morn, but I cannot forego closing my address without an indictment of the modern medical college. With that sublime attitude of the "King can do no wrong" they pursue "the even tenor of their way," oblivious of modern physical advances sitting peacefully embracing their abdominal paunch in a smug satisfaction that comes with limited perception and narrow-minded outlook.

Normally I am an optimist. I have lived to see so much accomplished, that I live to see more come true. I am hoping that a newer generation, when it replaces the old, will enter upon its duties without hide-bound prejudices with a full realization of all the branches of therapy, and then teach the budding medical man, that physiotherapy is one of those handmaidens of helpfulness that should find an abiding place in the strenuous work of daily practice.

THE DIAGNOSIS OF GALLSTONES

H. J. LEHNHOFF, M.D., Lincoln, Neb.

I HAVE nothing particularly new to offer in this paper. The ideas embodied herein are chiefly gleanings from two sources. First, from a general experience covering over twenty years; and second, from the review of fifty cases in which the diagnosis of gallstones has been confirmed either by operation or by direct roentgen evidence.

These fifty cases in which the diagnosis of gallstones was confirmed, either by operation or by direct X-ray evidence, occurred in 258 cases in which a diagnosis of gall-bladder had been made. Of these 258 cases, 82 had been diagnosed gallstones, 148 were diagnosed chronic cholecystitis, twenty-two were diagnosed pericholecystitis, five were diagnosed empyema of the gallbladder, and one carcinoma of the gallbladder.

While this paper has to do mostly with the diagnosis of gallstones, it is not a particular object of the paper to sanction the necessity of making a hair-splitting diagnosis between cholelithiasis and other diseases of the gallbladder. In a great many instances it is quite enough to make a diagnosis of gallbladder disease and determine whether the case is surgical or medical. Whether the case before you is suffering with gallstones or chronic cholecystitis without stones is often not a matter of great importance. I have chosen the subject of diagnosis of gallstones in this instance particularly for the reason that I believe we would gain some valuable facts and generalizations, from reviewing fifty cases in which we are absolutely sure that gallstones were present.

The first part of the paper will have to do with the principal facts taken into consideration in making a diagnosis of gallstones. The second part of the paper will have to do with a short resume of the direct review of the fifty cases above mentioned. There is no attempt to discuss all the points of history, physical diagnosis and laboratory analyses which characterize gallbladder cases.

History

In the history of previous diseases one of the most important facts to be elicited is a record of the recurrence of various infections. It is universal opinion that cholecysitis precedes the formation of gallstones. Infection in the gallbladder is often secondary to an infection elsewhere. Thus it becomes important to ascertain the recurrence of tonsilitis, paranasal sinusitis, oral infection appendicitis, etc. Any infection which is commonly looked upon as the source or fountain of focal infection is worthy of record.

From the viewpoint of symptoms, patients suffering from gallstones may be divided into two groups. In Group I may be placed those patients who have the general symptoms of gallstones without the severe pain, without the severe gallstone colic. These general symptoms are often spoken of as masked or inaugural symptoms.

In Group II may be placed those patients who, in addition to the general or masked or inaugural symptoms, have the acute, severe, colicy pain. A number of patients have pain only, but they are very few. It is those patients classed in the first group (that is, patients who do not have severe pain) who offer the greatest diagnostic problem.

(Since the above sentence was written I have read a thesis written by a New Englander in which he reported 425 hospital cases in whom a diagnosis of gallbladder disease had been made. In this thesis he made the following statement: "Indigestion without typical gallbladder pain was one of the most difficult symptoms to solve, and delayed the accurate diagnosis for a long time in many cases." I quite agree with him.)

Both groups usually give a history of stomach trouble which they describe as "indigestion." The examiner should not be content

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to record the term "indigestion" alone. It is indefinite and means nothing specific. It is the patient's unconscious diagnostic conclusion—a conclusion which has been resolved from certain facts, from certain observations, from certain conditions of disturbed function. It is these facts, these conditions of disturbed function, which the examiner must worm out of his patient, and which should be a part of his record—or at least a part of his knowledge. Indigestion may mean a number of symptoms, but in patients suffering with gallstones it commonly means one or more of four symptoms, namely: (1) Accumulation of gas; (2) Pronounced eructations; (3) A feeling of distress or weight or load in the epigastrium; (4) The belief that they are unable to tolerate certain kinds of food. The accumulation of gas does not occur at any particular time of the day, nor does it have any relation to masticating. It commonly occurs late in the evening, or an hour or two after the heaviest meal of the day, and at a time when the patient's general physiology is at a low ebb. In contradistinction to gallstone colic, it occurs in the daytime more often than at night. It may occur immediately after the initiation of a meal, or it may occur two or three hours after a meal. It is practically always described as accumulation in an area of the abdomen above the umbilicus; very seldom below the umbilicus. In some patients the gas is eructated with ease. In others it is raised with great difficulty, and the patient will resort to all kinds of home remedies and suggestions of exercises and positions of the body in order to be relieved, and as a last resort will frequently induce vomiting. The eructations are not always sour. They often taste of food previously eaten. The vomitus often contains food eaten hours before.

The symptom of "distress in the stomach," or of a pressure or weight or load, is little less common than the accumulation of gas. It often accompanies the latter. It, probably more than any other symptom, is responsible for the common complaint of "indigestion." The patient associates the symptom with the idea of unchanged food lying in the stomach. In some cases the patient may be right in regard to this interpretation, but in the majority of cases the presence of the food alone is not the sole cause of the symptom.

The complaint of the inability to digest tolerate certain kinds of food is less common than the above symptom. The patient will often name the particular kinds of food or even the individual articles which cannot be "digested," as acids, sweets or starchy foods, or potatoes, raw apples, etc. Here too the patient may sometimes be right. For instance, sauer kraut, which we all know is somewhat difficult to master in normal individuals, is as a rule very poorly borne by patients who have gallstones. A raw apple at night usually offends.

There is one fact in relation to this symptom which will be found helpful. If these patients are pinned down in their interrogation (probably if they are interrogated on different days), it will be discovered that it is not the kind of food but the quantity taken that brings relief. The less they eat, the less they complain. One will meet some of these patients who have been placed on different dietary regimes for the purpose of relieving their gastric disturbances. These patients in particular will relate that they gain relief only when they eat less. Subtracting food brings the result, not subtracting a particular kind of food. More fasting produces less subjective dysfunction. Patients with gallstone disease have often been heavy eaters before the occurrence of their stomach symptoms, or are heavy eaters in the interim between attacks, but they are practically never relieved of their so-called "indigestion" by taking a heavy or even a moderate meal. This is in rather marked contrast to the gastric dysfunction due to other causes. The gallstone patient who complains of "indigestion" may mean any one or two or three or all of the above symptoms.

In the second group we commonly have these general or masked or inaugural symptoms, and in addition have the severe pain. With the advent of the severe colicky pain the problem of diagnosis becomes easier.

The Pain

Pain is regarded by many clinicians as the most common symptom in patients suffering with gallstones. This conclusion is debatable. Pain in gallstones, like pain in cases suffering from other disturbances, is the big factor that causes the patient to seek medical advice. This is one reason why pain would seem so exceedingly more common in gallstones than other symptoms. However, it must be remembered that the gallstone patient who does not experience severe pain is not so prone to visit the physician as the one who does experience pain.

A second reason why pain would seem so common in these cases is the fact that gallstones with pain is much more easy to diagnose than gallstones without pain. Gallstones with pain are diagnosed gallstones. Gallstones without pain are diagnosed "indigestion," or "fermentation," or "too much acid," etc.

Pain may be the only symptom, and between the attacks of pain the patient may feel absolutely well, but this is the uncommon exception.

The pain of gallstones may be of any degree of severity. It is usually very severe rather than mild. It is usually located in the epigastrium or right hypochondrium. Owing to the relationship of the nerve supply of the gallbladder the pain often radiates around the right costal margin and to the right shoulder. It is one of the few abdominal pains that is described as going straight through the body to the back. If a stone is in a duct the pain is often intermittent. Jaundice may follow the pain, but this is not the rule. The pain commonly comes on in a short time and leaves rather suddenly. It is prone to come on after sunset rather than during daylight. While it sometimes appears in the evening, it has no regular relationship to meals. Following the law of Alveraez, if the pain occurs when the stomach is fairly full, the stomach will be emptied by vomiting. It is not uncommonly relieved by the relaxation of vomiting. It is almost always relieved by morphine, and usually does not return as soon as the effect of that drug has passed away. When the pain subsides, the patient usually feels well.

Physical Examination

(a) The physical examination in a great many of these cases reveals nothing. The great majority of such cases are fat people with thick, heavy, more or less flaccid abdominal walls. Nothing is felt beneath the wall; there is no tenderness, and no muscle resistance. In fact, it is the absence of abnormal physical findings that is really characteristic. If one examines the abdomen of a case in question and finds nothing abnormal, it is a bit of evidence in favor of gallstones.

(b) Subjective Findings: There is one subjective finding, namely, tenderness. This is often general, in the upper abdomen, and is usually most marked in the right hypochondrium or what is commonly known as the gallbladder area. It is often best elicited by a rather sharp thrust of the ends of the examining fingers under the costal border. This procedure is sometimes spoken of as Murphy's sign.

(c) Objective Findings: In more than half of the cases there is an increased resistance on the part of the right rectus, particularly in its upper portion. This resistance is involuntary, not volitional. It is independent of tenderness. The examiner recieves the impression that there is some pathology underneath this tension which the muscle is trying to protect. Of course this sign is not characteristic of diseases of the gallbladder. It occurs in cases of pathology in this particular area from any cause. Let me add, too, that it seems to occur in cases in which there is no pathology at all of the right hypochondrial area.

Occasionally a mass is felt. One always palpates for this mass but practically never expects to find it—and his expectations are usually fulfilled. If one does palpate a mass, it does not necessarily mean gallbladder. It is a pretty well established fact that gallbladders that are more or less acutely or subacutely irritated are contracted and even smaller than the normal gallbladder, rather than larger. This is true even when the common duct is closed. In long-continued chronic obstructions we sometimes find dilated gall bladders.

Roentgen Examinations

The roentgen evidence may be divided into three groups: (a) The direct evidence; (b) the indirect evidence! and (c) the eliminative evidence. I will speak of these very briefly.

By direct evidence one obtains the shadow of a stone or the shadow of the thickened wall of the gallbladder. The gallbladder may be large or small. When the findings by direct evidence are positive, it means everything. When the findings are negative they have little or no diagnostic value.

By the indirect method the examiner looks for influences produced upon adjacent organs, caused by the gallbladder disease. These deformities occur principally in the duodenum and less in the stomach and colon. Not only the outline of these organs may be disturbed, but they may be pulled out of position or become more or less fixed or immovable.

The eliminative evidence is of two kinds. In the first place, if we are fairly sure that we have pathology in the right hypochondrium, and by the roentgen ray we eliminate cancer of the stomach, ulcer of the stomach and duodenum, and chronic appendicitis, we are more justified in coming to the conclusion that the pathology is associated with the gallbladder or its ducts.

In the second place, if the roentgen evidence reveals a pathological process in some adjacent organ, gallbladder pathology is pretty well ruled out, for it is seldom that we find two independent pathological processes in the area under investigation. For instance, when the question of gallbladder disease or duodenal ulcer is before us and the roentgen ray clearly demonstrates an ulcer, one must decide tha the one condition is responsible for the symptoms, and therefore that there is no pathology of the gallbladder or of the bile ducts.

Laboratory Findings

At the present time there is some debicous on the amount of hydrochloric acid in onally stomach contents in diseases of the gall- Juri Valder. There were some rather strong isas City. ments on the side of hypochlorydria, o achlorhydria, in these cases. This

been our experience. The majority of cases have a normal or increased acidity rather than a subnormal acidity. The real fact of the matter is that long-continued chronic gallbladder pathology is often accompanied by hypochlorhydria, while the more or less acute or sub-acute condition, accompanied by reflex disturbances, produce a hyperchlorhyddria.

In this connection a diagnostic fact is well pointed out by Dr. Cheney of San Franci co. In a word it is this: The diagnostic problem of the presence of gallbladder disease or duodenal ulcer is before you. While hyperchlorhydria often occurs in chronic gallbladders, hypochlorhydria is seldom found in either chronic or acute ulcer of the duodenum. So the finding of a hypochlorhydria is on the side of gallbladder disease rather than on the side of chronic duodenal ulcer.

The Meltzer-Lyons method of aspirating the duodenal contents has been under the observation of a number of clinicians for more than a year. We have put this method into practice in a number of cases during the last ten months. Up to date we cannot say that it has been a very important factor in coming to any diagnostic conclusion.

Review of the Fifty Cases

Age: Of the fifty cases in which the diagnosis was confirmed by operation or x-ray, the age of the youngest was 29 and that of the oldest was 80 years. The average age was 48.2 years.

Sex: Of the fifty patients examined, thirty-seven were females and thirteen were males.

Weight: Of those patients who were weighed, the lightest was 129 and the heaviest 280 pounds. The average weight was 166 pounds. When one considers that thirty-seven of these fifty patients were women, one must conclude that 166 pounds is distinctly over-weight.

Child-Bearing: Of the thirty-seven women, thirty-two were married and five single. Twenty-seven had borne children. All but four of these twenty-seven were multiparas.

Chronicity

The length of time during which these patients had suffered from so-called stomach symptoms or pain was from one-half year to fifty years. The average was 8.6 years. This should be regarded as a rather important finding. We talk a great deal of the chronicity of duodenal ulcer, but we say very little of the chronicity of gallbladder disease. Because a patient has had his stomach symptoms for a particularly short time or for a particularly long time is not very strong evidence in comparatively a conclusion between the diagnosis of gallbladder disease and the diagnosis of duodenal disease.

Predominating Symptoms

As usual in patients suffering with gallstones, the predominating symptoms in the case that comes to the physician (and particularly to the physician who receives more or less referred work) is pain. In this series, pain was the chief complaint in thirty-six cases. Gastric distress or gas, or both, was the predominating symptom in twenty-five cases. Vomiting occurred as one of the chief symptoms in sixteen cases.

Physical Findings

As we have before mentioned, the physical findings are rather meager. In this series tenderness in the epigastrium or right hypochondrium, or both, was found in 41 cases. A tense right rectus, particularly in its upper portion, was found in 12 cases. A mass was palpable in but four cases. In at least one of these four cases the mass palpated was not the gallbladder.

Roentgen Findings

Only fifteen of the fifty cases were rayed. In ten of these fifteen the gallstones were demonstrated by direct evidence. This percentage is very high, and is by no means the rule. Of course it is highly probable that a number of cases were rayed in which the gallstones were present and in which the X-ray did not demonstrate them.

Laboratory Findings

Likewise the evidence of the laboratory findings in this series is not conclusive. A gastric analysis was not made for all the cases. In those examined a normal or a high acidity was demonstrated rather than a low acidity. In no case was an achlorhydria found.

In conclusion, let me state that postmortem reports demonstrate that about ten per cent of all adults have gallstones. Only about ten per cent of those that have gallstones suffer marked symptoms—that is, severe pain. To repeat: One hundred adults come to our office. Ten of these hundred have gallstones. One of these hundred has marked symptoms. Nine of these hundred (nine of the ten having gallstones) have only moderate or masked symptoms. However, it is important, and a part of the responsibility of the diagnostician, that the nine patients who do not complain severely shall have the presence of their gallstones determined.

I am more fully convinced than formerly that that wizard of analytical medicine, Dr. Lewellys F. Barker, was right when he quoted an American surgeon as saying: "Innocent gallstones are a myth."

Resume

(1) From a standpoint of symptoms, patients suffering with gallstones fall into two classes, namely:

Class A. Those with general or masked symptoms, with severe pain.

Class B. Those with general or masked symptoms, without severe pain.

(2) Class B is by far the larger.

(3) The diagnosis in Class B is more difficult than in Class A.

(4) It is probably just as important to make a diagnosis in Class B as in Class A.

ABSTRACT OF DISCUSSION

Dr. R. D. Ireland, Kansas City: I simply wish to choose a few of the excellent things of this paper just to emphasize them. All of the symptoms we are in the habit of observing as Gall Stones have also been observed when no stone existed. The doctor emphasized the history: Some one has said that the diagnosis may be made on the history alone in 90 per cent of cases. Pain and indigestion are the features of diagnosis. Pain may be severe with indigestion, or mild without indigestion; or pain may be lost sight of. The indigestion characteristics are: Sense of weight, fullness, waterbrash, vomit. These are not relieved by taking food, but are relieved by vomit and stomach washings. Pain is in the hpyochondriam and radiates to right shoulder and back. It is not characteristic. The history goes back many years.

Dr. Sachs: I wish to compliment the writer for his review, as he puts it so we can get it. No case of Gall Stones occurs without some infection previous.

Dr. Lehnoff (Closing): Shall the treatment be surgical or medical? I tell them if they wish to get well it must be surgical; but they can live along by medical means. The necessity of the history is the whole thing. A great percentage of cases are diagnosed by history alone. As to indigestion: This word should not be written in the history unless there is explanation of what it means, or you modify that expression. What percentage of gall stones are revealed by the X-ray, I do not know; by experience I think about twenty-five per cent.

Dr. Raymond L. Latchem announces the opening of his office, 308 Trimble Building, Sioux City, Iowa; practice limited to urology and urological surgery.

Dr. Robert Burns Gibb, one of the best-known surgeons of the middle west, died Sunday, April 9, at his home in Pittsburg, Kansas, where he had practiced his profession for twenty-one years. He had been chief of staff of Mt. Carmel Hospital in that city for a number of years. Doctor Gibb was born in Fairbury, Ill., December 15, 1878. The family moved to Montana when he was a child. Completing high school in Miles City, Mont., he attended the medical department of the University of Kentucky, Louisville, winning the highest honors in his class and also individual honors in surgery and diseases of women and children upon his graduation in 1901.

FERMENTATIVE COLITIS

By A. SACHS, M.D., F.A.C.P.
Professor of Medicine, Creighton Medical College, Omaha, Nebraska

MUCOUS COLITIS may be divided into three forms, one with constipation, a diarrheal form, and one with an alteration of diarrhea and constipation. It is the latter form to which I have applied the term "Fermentative Colitis," because during an exascerbation, of symptoms, the patient passes a soft, fermentative stool with a large amount of mucous, and flatus.

Mucous colitis in all its forms, is a symptom complex and not a disease. It may have variable etiologic factors and hence we rarely see two cases exactly the same. Different authors may differ some in detail in its description, but yet if we take it as a whole, most men strive for the same general results.

It is the function of the large bowel to receive the fluid contents of the small bowel, and by abstraction of water it increases the consistency of the stool so that in most normal cases, a formed stool is passed. The colon has an abundance of mucous secreting glands, which under normal conditions is an aid to defecation and under abnormal conditions can be secreted in excessive amounts.

The colon, according to Cannon, is divided into parts, a proximal and distal portion. In the distal portion the material is hard and lumpy, and is advanced by rings of tonic contraction. In the proximal portion, the material is soft and waves of contraction may be seen running toward the cecum, where they meet the ileo-cecal valve. This reversed or antiperistalisis is to thoroughly mix the remaining food mass and aid in the absorption of fluids, also to finish digestion. When more food enters the colon from the small bowel, anti-peristalsis cases, tonic contraction of the cecum and proximal portion of the colon occurs, and some of the mass is passed on to the distal colon. Anti-peristalsis again occurs as soon as the food reaches the distal colon. When an excessive amount of fermentation is present and the colon is somewhat distended, it acts as an irritant, the food is hurried on and does not permit the normal absorption of fluids, hence the occurrence of diarrheal stools.

External nervous influences, and disturbances of internal secretions (Thyroid) may produce the same effect., An abnormal amount of mucous is added to the stool, same as would occur in the irritation of any mucous membrane. The colon being exceptionally

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well supplied with mucous glands can produce any amount of mucous depending on the type of irritation present. If the mucous glands do not put forth this secretion, our mucosal surface may become dry and hyperemic and a small amount of bleeding may occur. This dryness of the colon may lead to small ulcerations, a condition which gives rise to a severe type of colitis which does not come under the scope of this paper.

Fermentative colitis is more often seen in enteroptotic nervous individuals. The enteroptosis may be either congenital or acquired. In the typical neurotic type, it is usually congenital. The degree of enteroptosis, however, bears no direct relationship to the severity of symptoms present.

The colon is under the control of the vegetative nervous system, the same as other visceral organs, glands of internal secretion and all smooth muscle. This system is divided into two great parts, the autonomic (vagus), and the sympathetic. Under normal conditions these two systems normally balance one another and we have a normal functioning bowel, however, if we have an over-stimulation of one or the other systems, the balance is disturbed and this gives rise to various symptom complexes. Pilocarpine stimulates the vagus. Atropine and adrenalin cause an over-activity of the sympathetic atropine by depressing the vagus and stimulating the sympatehtic, and adrenalin by directly stimulating the sympathetic. An injection of pilocarpine through its vagus irritation will produce spasmodic asthma, increased perspiration, and an increase of blood in the abdominal vessels. Atropine will counteract each one of these effects by its sympathetic stimulation (depressing the vagus) and relieve the condition as a result. Other toxins as alcohol, nicotine, faulty metabolism, have similar effects. Timme has experimentally shown that ligation of the vagus sufficiently tight to produce a pressure neuritis, caused an enlarged and hyperplastic colon. The visceral walls were firm and resistive to internal tension and the blood vessels were firm and elastic. In ligation of the smpathetics, the walls of the viscera were flabby and thin, and hung limply in the abdominal cavity. Pawlow and Cannon have shown that fright temporarily interferes with digestion similar to the effects of vagus ligation.

In most individuals the balance of the autonomic and sympathetic systems is well preserved and readily adjusts itself after being disturbed, hence the improvement of symptoms. In some cases the unbalance of the two systems remains and the patients present flabby abdominal walls, the viscera being the seat of stasis, showing lack of tone and reactive capacity. As a result they have constipation with alternating diarrhea, acid eructations, colic, distension from fermentation, depression, etc.

From the above one can readily see what an important factor the vegetative control plays in the production of a fermentative colitis.

Examination of the feces shows that they are composed of non-digestible material taken in with food, undigested food, chemical by-products of digestion, products of the alimentary canal and its secretions, such as mucous, bile, exfoliated epithelium, etc., products of bacterial decomposition, especially indol and skatol, the latter chiefly giving the odor to our feces, some purin bases and inorganic salts of sodium, potassium, magnesium and iron.

Enormous numbers of bacteria are also eliminated which according to Strasburger comprises one-third of the total weight of the feces. Adults pass an average of eight grams of dried bacteria daily. In dyspeptic conditions the average is 14 grams, though in exceptional cases this may reach to 20 grams. Strasburger places the average daily passage of bacteria in adults at 128 billions.

In an adult, the character of the intestinal flora is largely dependent upon the diet taken. With a normal mixed diet, the B. Coli and allied bacteria are most predominant.

The intestinal flora of a breast-fed infant is gram positive and consists chiefly of B. Bifidus and B. Acidophilus. In a bottle-fed infant, B. Bifidus and B. Acidophilus still predominate; however, a larger number of B. Coli, streptococcus lacticus and staphlococci are also present. As soon as the child's diet increases and milk ceases to be the main constituent, the B. Bifidus and B. Acidophilus rapidly are replaced by B. Coli.

There is still dispute as to the role bacteria play in aiding digestion. As a special case it is pointed out that the bacteria may hydrolyze cellulose and render it useful to nutrition, a process which is not taken care of by the intestinal enzymes. At present it is safest to accept the conservative view, that is, although the bacteria confer no positive benefit to the organism under normal conditions, they do no harm.

The majority of adults ingest a large amount of protein in their diet, and fecal flora is composed of from eighty to ninety-five per cent B. Coli and its allied bacteria.

The B. Coli ordinarily is a non-virulent organism, however, under abnormal conditions it may produce a great deal of damage, especially in the production of fermentation, colitis, pyelitis, etc.

The large bowel normally contains a variable amount of gas which is dependent on sev-

eral factors, namely, (1) air swallowed with food; (2) gas produced by fermentation; (3) air from the colon wall. The gas produced by fermentation is usually the most frequent cause of distension in colitis. Normally a considerable amount of gas is absorbed by the colon, however, in colitis this function is disturbed and hence this may increase the amount of distension present. In people over forty, the amount of gas is normally increased due usually to a lessened muscular tone.

It is the consensus of opinion that no inflammatory changes of any great degree exist in mucous colitis; however, there are two distinct types of colons that are seen in this condition; one in which definite signs of inflammation are present, and the other in which no inflammatory signs can be found. In a fermentative colitis we also see these two distinct types and the pathology present is dependent entirely on the etiologic factor producing it.

Fermentative colitis being a symptom complex and not a disease entity, we have various etiologic factors producing it. I may divide these into the organic and functional. The organic causes of a fementative colitis are:

A. A malignancy of colon or adjacent structures.

B. Mechanical obstructions of the colon, such as adhesive bands, pressure of neighboring organs, such as the uterus, tumors outside the colon, etc.

C. Conditions in the wall of the colon such as diverticulitis tumors, etc.

D. Conditions within the colon such as intestinal polyps, extension of inflammation from without, stasis due to heart disease, etc.

E. Trichominods, worms, etc.

The above are all forms in which definite pathology is present and hence not to be considered in this paper.

The functional causes are:

A. Improper habits in neglecting daily evacuations.

B. Abuse of cathartics.

C. Enteroptosis.

D. Improper balance of autonomic and sympathetic systems.

E. Abuse of tobacco.

F. Improper mastication and bolting of meals, indiscretions and errors in diets.

From the etiologic factors we can readily see that this condition is found largely in congenitally neurotic individuals, or individuals with an acquired neurosis, either through the strain of business, financial stress, family trouble, etc.

The symptoms are variable as to kind and severity. The pain is usually of a colicky character and relieved by evacuation. The pain may be slight or so severe that an opiate may be required. It has no definite time as relation to meals but frequently occurs soon after eating. The kind of food bears no definite relation to the pain; however, during an exascerbation of symptoms the food with large amounts of cellulose seem to cause the most trouble. Some patients will complain of meats increasing their trouble, and some complain of starchy foods.

The pain is usually general over the whole abdomen, but at times more marked over the sigmoid area. It is usually not referred. They may complain of pressure in this locality. Flatulency is always present, and may be moderate or severe. The patients usually pass a large amount of flatus with some relief of pain.

There may be some nausea, at times vomiting. The vomiting is not characteristic and usually gives no relief of symptoms. There may be some belching and in some cases aerophagia is present. The patients frequently suffer from a great amount of depression which usually lasts until the attack is terminated. The attacks may last from a few days to several weeks or months.

The number of evacuations depends entirely upon the severity of the attack. The stool is soft and offensive. A large amount of mucous is usually present, especially after the use of a laxative. Fermentation in the stool is very marked and oftentimes the gases may force a loosely applied lid off from its receptacle.

The microscopical picture shows food remnants, meat fibres, starches, mucous and the usual picture of a diarrheal stool. The gastric acidity varies from an anacidity to a hyperacidity, depending on the individual in which it is found. There may be a marked indicanuria which in some cases is directly proportionate to the amount of fermentation.

The rectoscopic examination may show no pathology, or it may show a hyperemic mucous membrane which is dry and has small amounts of mucous clinging to it. The X-ray may also be negative or show the signs of a mild colitis.

The diagnosis, as a rule, is easy for the history, the type of the individual and the stool usually complete the story. A careful history should be taken and a complete physical examination should be made in all cases. It is also well to have an X-ray taken and a rectoscopic examination made especially to aid in ruling out some real organic lesions, such as mentioned earlier in this paper.

The success or failure of treatment in these cases depends entirely upon their individual management. An attempt should be made to relieve the neurosis by careful analysis. Often-

times this with small dietetic changes, is all that is needed to relieve our patient. The enteroptosis should be corrected as far as possible by a rest cure with proper diet and aided by a properly fitting corset or abdominal support. Surgical interferences is not indicated unless some mechanical obstruction is present.

In times past many human ills were attributed to auto-intoxication and with this in view, Metchnikoff in 1906 offered his Bulgarian bacillus as a means of destroying the B. Coli and thus eliminating or minimizing intestinal putrefaction. We now know that the B. Bulgarius does not lessen the number of B. Coli and hence cannot be offered as a cure, but it has paved the way for others to find a method of holding the B. Coli in check.

Rettger of Yale has experimented with B. Acidophilus and has shown that this organism can be implanted in the intestinal tract. Coincident with the implantation, a marked decrease of the B. Coli occurs. It may reduce them so markedly that they only represent about ten per cent of all fecal bacteria. This work is still experimental; however, it offers a rational way in combating B. Coli.

Gompertz of New Haven reports excellent results in the treatment of constipation and some diarrheas by the internal use of B. Acidophilus, and suggests that it be given in broth cultures. The broth culture is prepared so that each cubic centimeter contains one hundred million organisms. The average dose is from 10 to 20 cc. given from two to four times a day.

The B. Acidophilus is a gram positive, non-motile bacillus and is non-pathogenic. Two or three days after its administration, these organisms begin to appear in the stool and gradually replace the B. Coli until after the sixth day they represent about ninety per cent of the fecal micro-organisms. Gompertz claims that from the sixth day on the fecal flora consists predominently of B. Acidophilus regardless of the character of the patient's diet.

B. Acidophilus may be given by mouth, by the duodenal tube or by rectal implantation, the former two being more reliable than the latter. This method gives us a new means of attack and thus far promises good results; however, it is too early to predict its ultimate success, and more time is needed to determine the permanency of the results obtained.

Colon irrigations may be of marked value in some cases, and may do an unusual amount of damage if used indiscriminately. Oftentimes a high colon irrigation is the only means by which a virulent streptococcus may be obtained. The haustrations of the colon make a good incubator for virulent organisms, and unless they are dislodged, may produce considerable damage. Irrigations are sometimes our only means of ridding the colon of old scyballus masses and in certain cases with joint manifestations, it offers a great relief. Also they frequently relieve a patient of marked depression, if proper attention to diet, habits and exercise is added.

Colon irrigations should not be continued over long periods of time nor by inexperienced nurses, for the mechanical irritation may itself produce a marked colitis. Floyd reports a case in which large amounts of mucous appeared in the stool after each course of irrigations. Instillations of astringents and irritating medication is in my opinion never indicated in fermentative colitis. Intestinal antisepsis cannot be accomplished by medicinal irrigation or intestinal antiseptics given by mouth.

Intestinal antiseptics such as salol, zinc sulphocarbolate, beta naphthol, etc., may have some value in certain cases; however, I believe no drugs should be used unless indicated. In patients with a low acidity, a bitter tonic with dilute hydrochloric acid may be of value. If hyperacidity is present, alkalies are indicated.

The use of oil per rectum is a valuable aid in some cases in relieving constipation. It is also of value if used in cases in which a rectoscopic examination shows a dry, slightly hyperemic mucosa. In these cases it is well to place the oil high up in the colon by means of the colon tube.

The diet in my opinion is of great importance in all cases. A routine diet cannot be prescribed for some cases tolerate starches well and others do not. This can be easily determined by the history and proper stool examinations and a suitable diet can then be prescribed. Hot packs, massage, hydrotherapy, proper exercise and modes of living are a great aid to all neurotics, hence of value in fermentative colitis.

Excessive smoking is more frequently an etiologic factor in fermentative colitis than is generally believed, and I at present have two such cases under treatment. By removing the cause, the colitis readily responds to treatment.

The number of cases of colitis now seen are more frequent than in the past, and I personally believe that our present modes of living and the stress of the present times are the etiologic factors responsible for its increase.

ABSTRACT OF DISCUSSION

Dr. Fishman, Oklahoma City: I regret I did not hear the early part of this paper. Discussion of this subject is timely. I find most diagnoses of stomach and large bowel troubles are Colitis, usually. The management of these cases is first a thorough ex-

amination of everything of the gastro-intestinal tract. In your diagnosis do not forget examination of the stools. They are more important than of the stomach contents. The treatment of these cases by yeast,—it remains yet to be seen if it is good. The yeast manufacturers think so.

Dr. Lehnoff, Lincoln, Neb.: I consider the subject one of the important things of every day. Colitis begins with some irritation. It may be through nerve irritation outside of the body as well as inside. Stress of nerves will produce it. Another common cause is our old friend Chronic Constipation, which is the beginning of most cases. Irrational foods easily account for one-half the constipation of the race; this results in irritation of the bowel and thus often starts Colitis. The treatment really is wonderful if you bear in mind four things: (1) Relieve psychis influence. (2) Rest in bed. (3) Administration of proper food. (There is required the cellulose from coarse vegetables. These do not irritate the bowel, but prevent the hard stool, which does.) (4) Atrophine or Belladonna to quiet vague nerve. On the question of gas in the bowel, I think many chapters are yet to be written.

Dr. Vanbuskirk, of Corea, asks: "Will the essayist please state if these cases are the same thing we have in the old country and call Sprue?"

Dr. Sachs, (in Closing): Rectoscopic examinations are not used enough as routine procedure. It beats all others. Yeast, in one case in which there was a diabetic factor, did seem to help. Gas of the colon comes about in three ways, with air swallowed, (after forty years of age all persons have more gas on account of relaxed musculature) acts as a viscious circle. These cases are not Sprue—they are different; there is definitc pathological lesion in Sprue; Colitis is a neurotic affair.

HOW TO ARREST THE INCREASING PHYSICAL DEGENERACY OF THE RACE

By W. O. HENRY, M. D.,
Los Angeles, Calif.

(Concluded from Page 123)

And the English woman, Miss Norah March, editor of National Health, in speaking of this problem insists that **women, married or unmarried, have a right to motherhood and no questions asked.** "If these women are to lead celibate lives, it means a serious sacrifice to them —a denial of motherhood—is that fair?" says this author and then proceeds, "It is possible that the future may see some form of extra-marital sex relationship and parenthood finding a recognized place in our social code." And it is is said that England is being flooded with pamphlets in advocacy of some such scheme as the foregoing.

Then the Parliament is being asked, like some of our State legislatures, to pass laws giving the father's names and certain legal rights to these many children born out of wedlock. Last year England had 50,000 of these and 8,000 cases of Bigamy, while the United States had probably 100,000 of the former with many of the latter. But since this is wholly in conflict with plain Bible teaching though it may prevail and become a recognized legal remedy it will prove to be a false hope.

A sad woman writes a very pitiful plea to the editor of a great daily paper and says: "Today very few women have their husbands to themselves. We all know the looseness of morals in modern society and also in other walks of life as well. Are society and all our laws or morals and marriage wrong?" Some noted writer says, "There might have been no free United States without Franklin, with one exception the greatest man that this nation has produced. Franklin had his attack of goodness. He often conquered it, as shown by the list of his illegitimate children and other incidents, but fundamental goodness remained with him all his life."

Without taking time now to elaborate, let me state the remedies which should be applied to mankind and human society, if race decay is to be arrested: We must have

First,—The New birth for the individual, to give him **right desires,** motives and aspirations; for Sin is only **desiring one's own way,** which is always evil.

Second,—Bible marriage, which means man and wife coming together in mutual satisfactory sexual relations and thus becoming **One Flesh,** and so remaining **for life,** unless one or the other proves faithless and commits adultry, or prefers to live apart.

Third,—Bible divorce, which means for adultery only and remarriage privilege at once, for the innocent party; but separation without remarriage when wife feels that she can best live apart from her husband.

Fourth,—Bible Polygamy, which means a man may have as many wives as he can properly support; but he must support them all and care for the children. He is in no case allowed to abuse, neglect or mistreat any of them, but must love and cherish them as his own body for these wives are all **one flesh** with him.

Note the contrast between Bible Polygamy which is good sense, good health, and good morals; and our present system, which is neither. Society, public opinion, Church and State all permit a man to have as many wives as he wants if he will take them one at a time, and he need not care very much for any of them or the children. And he may exploit as many innocent girls as he can seduce by fair means or foul and then throw them and their babies into the discard with little or no tra- And he may give disease to any or a- oral and no just penalty is meted out t- means in multitudinous other ways he ma- isobe- abuse or ruin these women to v- ing to

, or lack

morally responsible, and Society, Church and State look on with stolid indifference and cruel mockery.

(a) Monogamy practically forces many invalid women to bear puny, undesired and sickly offspring.

(b) Monogamy practically drives many men to secret bigamy, polygamy, or adultery.

(c) Monogamy breaks down and kills thousands of women prematurely, either from the sexual abuses of their husbands, excessive childbearing or from the venereal disease which their unfaithful husbands give them.

(d) Monogamy drives many women to murder their innocent babies and often times to take their own lives.

(e) Monogamy leaves many desirable maidens and widows without husbands and deprives the state of the very choice and much needed children which they would gladly produce.

(f) The false sentiment which demands ignorance of the sexual system and its pure and proper use, denying women the right to know that their **first** duty in married life is to become **one flesh** with their husbands and gratify their normal passions, must be overcome and the truth must be taught, and practiced.

(g) Today, not more than twenty-five per cent of marriages are thus happily consummated, but instructions faithfully given would greatly increase the number, and the per cent of those who would need more than one wife would be smaller than it is now, and especially if the husbands were required to fulfill the Bible conditions of properly caring for all wives and children.

Fifth. Biblical truth taught and scientific truth also, as fast as it is discovered on health problems, and teach that the command "Thou shalt not kill," means you shall not shorten your own life nor that of your fellow-man by any process whatever. Of course, the knife, the club, the bullet or any deadly weapon should not be used upon your fellow-man nor upon yourself. The quick poison, the slow poison should neither be used by yourself nor thrust upon your fellow-man. The abuse of alcohol, tobacco, opium, cocaine and all injurious drugs should be avoided. Individual responsibility and personal accountability to obey this Divine command must be taught and practiced.

It taught that adultery is not only sin; but or physical wrong which will surely bring times a penalty in race degeneracy and no by which medical treatment will permanently tained. ysical injuries to the race no mata good inemingly successful these preventive unless they measures are, for the specific reason that such remedy is always wrong in principle, and you cannot triumph over the mandates of the Almighty by any ruse or subterfuge which man can discover or invent.

Adultery as taught in the Bible is sexual relation between a man and woman who do not in and by that act become one flesh and solemnly before God therefore pledge themselves to each other for life. Such pledge and act constitute marriage and is what God hath joined together which no man may put asunder. The public ceremony by which minister, judge or priest assumes to marry people is but the vain shadow and not the reality at all, and while we should always have the legal ceremony still we must teach the truth about real marriage and let all parties fully understand it and enter the sacred relationship with willing minds and in hearty accord, because they **expect** and **desire** these conditions and their natural results, or children. Such sexual relations are normal, healthful, clean and holy; while all others are abnormal, unhealthful, impure and unholy as shown by the wide spread venereal diseases, criminal abortions, deaths and other serious afflictions of the race.

Man cannot violate either of these two moral laws without suffering both a spiritual and physical injury. He cannot escape the just penalty of any broken law in the physical world.

But you say, "When in Rome do as Rome does," but I warn you against that fallacy whose practice is all too common, and say, when in Rome do right both physically and morally whether Rome does or not. When in Boston or New York, San Francisco or Los Angeles, obey the laws of the God of the Bible whether religious, moral or physical no matter what others do, if you would be in religious, moral and physical health.

The standard of **right** and **wrong** as set forth in the Bible by the Sovereign Ruler of the Universe **does not vary** with **time** or **people** or **sexes** or **races** or **localities**; neither do the rules of health or the laws of man's physical being. The laws of all branches of real science, as well as those of true religion and morals, are mandates of the One Supreme and perfect Being, therefore, they must and do harmonize with Him in body, soul and spirit.

Prohibition was not taught by the church, by public opinion nor public sentiment until a few years ago; neither was woman suffrage Have the church and public opinion been in conflict with the Bible and the teaching of Jesus for two thousand years? Or has the church been swayed from these teachings by a false sentiment and so-called science and progressive

dvancement upon those old truths for which he Bible has always stood?

The church and modern society are following false leaders and false interpreters of Bible truth, and for this reason has not the power o change the lives of men or nations that it would have if loyal to the Bible. The Bible has not changed in 2,000 years on these questions, therefore, the church is wrong now, and am sure it was right in the past. I am neither n alarmist nor a pessimist; but **I am an optiinist of the first order** and **have perfect confilence in the victory of truth and righteousness. n the complete triumph of peace** and good will among men here upon earth exactly as the Bible declares. I must, however, enter a most igorous and emphatic protest against all **false eforms** or **health remedies** in conflict with plain Bible teaching whether proposed by prolessed friends of that book or suggested by he large class of people who think the world has outgrown or progressed beyond this sacred volume.

The question **is not,** will such a glorious time ever come to this earth, for that has been settled by the Almighty Himself; but will we now recognize the truth on these questions and have a helping part in it, or will we miss our opportunity and leave it for our successors to reap the reward and enjoy its benefits.

Any reform, moral or physical; any proposed improvement of either sex or of the race which ignores or violates Bible truth is doomed to failure, for that book teaches fundamental truth with which all other truth must harmonize.

If God had wanted to make it impossible for man to sin or get sick or suffer any affliction, He could and would have so decreed. I fthe All-wise Ruler of the Universe had wanted man to make it so, He would have thus instructed him. But since He has done neither, it is plain that He had some wise and good purpose in leaving man free to take the right way (the way of obedience) and give up the wrong way (the way of disobedience) he is at perfect liberty for the time being to have **his own way**

Or if this infinitely Wise and Good and Powerful Being had merely wanted to force obedience to moral or health laws, He would have compelled such obedience. Or if He had wanted man to coerce his fellow-men to such observance He would have so ordained. But since He left it for us to **educate** and **persuade** our fellows in matters of health, science, morals and religion is it not clear that such method is best? The Bible way, the way of true science is always God's way; while man's way is forever wrong when not in full harmony with these. No man or nation can ever make **it sane** or **safe, healthful** or **wise** to violate any divine law whether of morals, health or religion.

I am speaking for more than 100,000 women in America every year and millions beyond our shores whose cowardly seducers leave them to bear the unjust and cruel stigma of society for bearing children without lawful husbands. I am speaking for the vast horde of innocent and helpless babes thus left without a name and proper home care. I am speaking for that great army of divorced women who cannot have legal husbands since they do not fill the sexual part of wifehood and owing to the vicious and unscriptural customs of society they are cast aside in obedience to public opinion.

I am speaking in behalf of the multitude of women who sicken and die yearly from sexual abuse of their husbands.

I am speaking for the host of young women who are doomed to die of a sad and disappointed maidenhood who could and would gladly make good wives and mothers if the narrow and vile customs of society did not prevent it.

I am speaking for that vast army of young women who are yearly exploited by young men who are too selfish and untrue to take them as legal wives and publicly assume the duties and obligations which their private acts have justly imposed upon them.

And last of all I am speaking for that innumerable host of women whose husbands fail to give them that measure of fair treatment and kindly consideration which the Bible requires when it says: "Husbands love your wives and be not bitter against them." "So ought men to love their wives as their own bodies."

To have physical health, one must obey the laws of the physical organism.

To have moral health, one must obey the laws of the moral being.

To have religious health, one must obey the laws of the religious being.

That is to say, **physical health** means harmony between the organism and the laws which belong to its physical nature. Moral **health** means harmony between the moral being and the laws which belong to the moral nature. Religious health means harmony between the religious being and the laws which belong to the religious nature. **While disease, or physical degeneracy or lack of physical health means discord in an organism because of disobedience to one or more laws belonging to its physical nature.** And immorality, moral degeneracy, or lack of moral health, means discord in a moral being because of disobedience to one or more of the laws belonging to the moral nature.

And irreligion, religious degeneracy, or lack

of religious health means discord in a religious being because of disobedence to one or more of the laws belonging to the religious nature.

It may be well to remember that as there can only be **one** kind of **real** and **true physical health,** so there can be only **one kind of real and true moral health or morality,** and only **one kind of real and true religious health, or religion.**

Man's Great Study is to learn these laws, strive to obey them; and then teach them to his fellows and seek to **persuade** them also to obey them.

Since man is a triple being composed of body, soul and spirit, a physical, moral and religious nature, we cannot ignore any part of his three-fold nature, if we would successfully deal with any one part. And when we have so educated the individual and the race that all have come to know and obey these laws because they **desire** such **physical, moral** and **religious health,** we will have reached the acme of human perfection. Of course the physician's chief business is dealing with the health of the body, but he should not neglect the other elements of the human being or he will not achieve the highest success.

My conclusions are, in order to arrest the increasing physical degeneracy of the race we must

First,—Teach the moral, religious and health laws of the Bible and **persuade** people to obey them.

Second,—Teach and persuade people to obey all other laws of health as fast as science discovers them.

POLYVALENT VACCINES AS ANTIGENS FOR ANTIBODY PRODUCTION

G. H. SHERMAN, M. D., Detroit, Mich.

THE UTILITY of Bacterial Vaccines as applied in the prevention and treatment of bacterial diseases is founded on rational ascertainable facts, which facts, when examined, offer to the general practitioner of medicine a definite understanding of their proper administration and action.

A more comprehensive idea concerning the relationship of toxicity and stimulus is an essential requisite to the successful practice of immuno-therapy.

The essential difference between the live virulent and killed or attenuated inoculated organisms, as far as their relation to the tissue cells of the host is concerned, is that the virulent organisms offer a certain resistance to avoid destruction while inoculated attenuated organisms are not capable of offering such a resistance and consequently soon become a prey to tissue cell activities and it is this ability of tissue cells to produce substances that will destroy these germs that constitute the essential element in the establishment of an immunity.

When a person, or animal, is attacked with living virulent organisms, destruction of tissue or destruction of blood corpuscles or both occurs. The destroyed cells act as pabulum or culture medium for the further incubation of organisms. As a result further destruction of tissue occurs often with swelling, pain and interference with function. In some cases soluble exotoxines are formed and are absorbed and the "vital centers" are ultimately attacked.

Symptoms of the disease occur of which the patient complains and finally either recovery or death may occur. In the former case the invading organisms were so few that they were readily destroyed or inhibited by the phagocytes or by the "antibodies" present in the blood and tissues, or they were so attenuated (even though the number were relatively great) that they were readily destroyed by the same agents. They are entirely unable to use the interior medium of the patient as a culture medium, and are in effect, therefore, for that particular patient at that particular time non-virulent and non-toxic. When the disease progresses and local necrosis or the death of the patient occurs the opposite holds true, viz., in relation to that particular patient the organisms are virulent and toxic.

A toxic agent is pathogenic because it fatigues or destroys the cell or cells with which it comes in contact. Since this toxic agent is produced by a living entity which grows and multiplies within the living tissues, such as prevails in an infection, the amount of toxic material produced depends on the activity of the infecting organism and may readily be sufficient in quantity to cause irreversible fatigue, rendering response to stimulus impossible. This toxicity of infections is mainly due to ferments which the germs secrete for the purpose of preparing the food on which they live and naturally is destructive in tendency. So, instead of being a stimulus to arouse tissue cells in their defensive capacity, this toxicity exerts a destructive influence often to a point of irreversible fatigue. For this reason toxicity as a result of an infection cannot be considered a reliable stimulus for antibody production. As the defensive mechanism of a germ consists in its ability to digest the food with which it comes in contact, so the defensive mechanism of living tissues consists in the ability of cells to be influenced to metabolize ferments which cripple or digest the germs.

The same germ portein agent in small dosage so altered by heat or chemicals that it is no longer able by metabolism to utilize the patient's tissues and cannot therefore carry on a cell destructive role, but instead acts as a dilute physiologic foreign protein is a stimulus to the cell to influence it to digest this protein. In other words, the cell is physiologically stimulated to increased action, but never influenced to the pathologic point of fatigue or necrosis, in its endeavors to get rid of the foreign protein (bacterial vaccine) by means of the ferments called antibodies, which it secretes. By making repeated injections of killed organsims the reactive power, a sort of amplitude of response of the cell is increased and will thereafter not be fatigued by largely increased doses of the agent that previously was toxic. In addition to this the physiologic habit of response to the specific, or closely allied enzymes or proteins present in infective processes, is increased in the hitherto sluggish or slowly reacting cells, constituting an increased immunity.

This stimulating action of killed organism injections or bacterial vaccines, is just as pronounced in the presence of an infection by organisms corresponding to the organisms in the vaccine, as in the absence of an infection unless the cells of the patient are already irreversibly fatigued by the toxins evolved from the infection. For this reason vaccines should always be given early, before the infection has a chance to develop to a point of irreversibly fatiguing cell activities.

A vaccine scientifically prepared, used up to the point of tolerance, i. e., not to or beyond the point of fatigue of the cells is a stimulus—it does not progressively, undesirably and permanently destroy cells, interfere with function and initiate disease as does the living virus.

A careful study of the action of bacterial vaccines has demonstrated for the average case the safe minimum and maximum doses and the variations for individual idiosyncrasy are regulated by observation of the local, focal an systematic reaction after injection of the initial indicated dose and most efficient intervals.

509 Ashland Avenue.

Dr. John M. Bell has been appointed a member of the Board of Health, St. Joseph, Mo., and at its first meeting was elected president.

Dr. Richard L. Sutton, LL. D.—The honrary degree of Doctor of Laws was conferred upon Dr. Richard L. Sutton of Kansas City, on April 26, by the University of Missouri. The presentation was made by Dr. A. W. McAlester, Sr., nestor of the state medical profession.

THE ENDOCRINES IN GYNECOLOGY

DR. J. F. OWENS, St. Joseph, Mo.

THE two great functions of the female generative organs, menstruation and reproduction, are both profoundly influenced by disorders of the ductless glands. This is especially true of menstruation. It is now definitely known that the cause of menstruation is an internal secretion of the ovary, and that the element of the ovary, which is concerned in the process, is almost certainly the corpus luteum.

When menstruation develops, the corpus luteum is normally developing each month, coming into play with other glands, and thus we have a relatively new secretion thrust into the economy. Therefore thirteen times a year, in normal cases, there develops in one ovary or the other a corpus luteum which is a gland of marked secretory influence. This reacts upon the thyroid and posterior pituitary particularly. It stimulates the thyroid in anticipation of pregnancy. It should inhibit the posterior pituitary to avoid uterine contractions. Menstruation is a miniature labor. Labor is a magnified menstruation. The pituitary reacts at menstruation in the same way that the thyroid, and the posterior lobe particularly, is closely concerned with the menstrual function. At full term we have the ovary and the pituitary extract acting again as they do at menstruation after a period of two hundred and eighty days, during which time their menstrual function has been inhibited by the presence in the uterus of the placental gland. At the menapause we have regression of the ovarian function with a coincident alteration in normal cases, on the part of the thyroid, adrenals and hypophysis. Since every ductless gland is influenced by hyperactivity, or hypoactivity of any other glands in the cycle, it can be readily seen why we have instability of gland function so particularly marked in the female. Since the entire co-ordination between the glands is often upset at the menapause, we can readily account for the nervous phenomena so frequent in the female; for it requires only a slight study to determine that the thyroid, adrenals and the pituitary are very essential to a normal, stable, nervous system. If we, as gyneologists lay great stress upon the importance of ovarian function, it is because the function of the ovary as manifest by menstruation and premenstrual symptoms is an index to its relation to other glands.

Amenorrhoea

The majority of menstrual disorders are, of course, due to some form of anatomical lesion

Read before the Buchanan County Medical Society, March 8, 1922.

of the uterus oradnexa. A certain group, however, is undoubtedly the result of internal secretory disturbance, the most clearly defined type of the menstrual disorder which is undoubtedly of endoctrine origin is that observed in connection with the well known adiposity, characterized in women by the occurrence of amenorrhoea. This association of symptoms is encountered with great frequency by every gynecologist. Even in the early days of gynecology, the fact was well recognized that scanty menstruation is often noted in patients who have taken on a great deal of weight. We now know, thanks to the researches of Cushing, that both are the manifestations of the same underlying cause hypopituitarism, physiological amenorrhoea occur during pregnancy and at the climacterium, and during lactation. The amenorrhoea of pregnancy is due to the inhibiting influence of the placental secretion. The amenorrhoea of lactation is due to the inhibiting influence of mammary secretion acting on uterus, ovaries and related glands. The inhibiting influence of the mammary secretion is by no means absolute, for many patients either menstruate during lactation or after the first few months of lactation, or conception may take place during the amenorrhoea. The amenorrhoea of pregnancy is generally absolute. But during this whole period there is a contest between the glands producing menstruation and the inhibiting influence of the ovum.

The thymus gland is supposed to regress and by its regression and the inhibiting influence, the development of the sex organs is allowed to proceed. Therefore, an early or late regression, or a failure to regress is supposed to influence the period when menstruation develops, and the character of menstruation. With this sketch, it may be readily recognized how the activity of the sex organs of the female are influenced in the way of stimulation and inhibition by the other endocrine structures and it must be apparent that primary activity of these sex organs may correspondingly affect the associated endocrined.

Uterine Bleeding

Excessive uterine bleeding, either in the form of menorrhagia or metroragia, is almost always due to one or other of the numerous pathological conditions which may occur in the uterus or adnexa—retained products of conception, cancer,, myoma, polypi, salpingitis, etc. In a certain proportion of cases, much more frequently than was formerly believed, such bleedings may be observed in the entire absence of any demonstrable pelvic disease. It is suggestive that such functional uterine hemorrhage is noted most frequently at puberty or at the menapause, when endocrine equilibrium is most unstable. The awakening of ovarian activity at puberty, and its cessation at the climacterium, may well be expected to disturb the delicate endoctrine balance. Uterine bleeding is often observed in connection with derangement in the function of the thyroid. It is a question whether excessive menstruation is more likely to be associated with hyper or hypo-thyrodism. Novak believes that it may be associated with either, but it is with deficient thyroid function that we are more likely to encounter uterine hemorrhage. Bandler says there is little doubt that other elements in the endocrine chain, the pituitary, thymus, suprarenals, etc., may at times be responsible for uterine bleedings and other menstrual disorders. From a theoretical point of view, the form of endocrine disorder which one would naturally think of as most likely to cause uterine hemorrhage would be over-function of ovary. Adler claims by feeding ovarian extract to a girl of twenty-one, whose menstruation had always been normal and very regular, he brought on the menstrual period, the first time in the girl's life, four days ahead of time, the amount and duration being also much greater than normal.

Although the ovary is no doubt the immediate cause of menstruation, we must not overlook that it is, after all, only one element in the complex menstrual machinery.

Dysmenorrhea

The occurrence of dysmenorrhea as a result of endocrine disorders is certainly much less frequent and much more difficult to demonstrate than that of either amenorrhea or excessive menstruation. The underlying condition in these cases is a greater or less degree of uterine hypoplasia, of the foetal or infantile type.

When dysmenorrhea is observed in young unmarried women with under-developed uteri, the symptom is brought into relationship with the endocrine apparatus by virtue of the fact that disorders of the latter are unquestionably to blame for the uterine hypoplasia, and indirectly for the dysmenorrhea. Knowledge of this fact should point the way to future efforts to find a satisfactory treatment for this condition. Certainly no one can deny that the results of present day treatment of this condition, the use of stem pessaries, or the performance of plastic operations on the cervix, are such as to provoke little enthusiasm among physicians. It is true that the same statement applies to organotherapy in such cases, but I think the fault lies with our lack of knowledge concerning endocrine relationship, as well as the methods of making of gland extracts. During all the years that the uterus is present, acted on by the ovaries, related directly or in-

directly to the thyroid, pituitary and adrenals, the uterus is an organ of importance only from the standpoint of propagation, and all the nervous annoyances from which women suffer because of the fact that they have ovaries and uterus are the price which they pay for possessing an organ necessary to motherhood. After motherhood is no longer to be considered, the uterus is absolutely of no value. So long as it is productive of no annoyances all is well. When that uterus is the seat of benign or malignant growths, operation is generally recognized as the only treatment in the malignant cases, and is the advisable one in a large number of benign type.

Sterility

Much of what has just been said concerning dysmenorrhea applies also to the discussion of at least one type of sterility, that associated with uterine hypoplasia. It is quite possible that our helplessness in this, one of the big problems of gynecology, is due to the fact that we have paid too much attention to the study of anatomic defects in the reproductive organs, and too little to the possibilities of perverted physiology of the generative apparatus. The element of atrophy of the uterus and ovaries is of the greatest importance and the greater the degree of amenorrhea, the less favorable, as a rule, is the prognosis. Bandler states that it is his belief that a menstruation every six to ten weeks, associated with a normal loss of blood, is of no worse prognostic significance than a regular menstruation of only a day or so; but it is as unsafe to state that such patients do not ovulate as it is to state that all women who do menstruate do not ovulate. The structures of the outer coverings of the ovary may be so altered that Graffian follicles do not burst. The liquor folliculi bursts through the thin covering of the follicle and carries with it the ovum. But this bursting cannot be depended on simply by pressure. There must be in the liquor folliculi an enzyme or ferment which assists in this process. If because of any of these conditions the follicles do not rupture, the ovaries become filled with cysts and because of their presence add to the difficulty of ovulation. The cases of sterility favorable for treatment of any sort are those in which no evidence of inflammation can be found, those in which evidence of inflammation can be found, those in which the hypolasia is of no marked degree, and those only where spermatozoa in the male are found to be normal. Sajous' explanation as to the causation of sterility in the so-called favorable cases, fixes the blame either on the ovaries and the failure of ovulation, or on the tube and its cilia which are to move the ovum into the uterus, or on the uterine lining which is the ground in which the ovum is to rest, or on the inability of the fecundated ovum to inhibit menstruation.

Pathology has taught us how profoundly the growth of the body may be held in check or stimulated or altered by the overactivity of the pituitary gland, the thymus, the thyroid, the adrenals, etc., and it teaches the gynealogist how profoundly the genital track is involved by disease of these same glands. An underactivity of the pituitary most profoundly affects the development of the ovaries and the uterus, but if posterior pituitary in-activity takes place after their development, it may bring their atrophy. Affections of the thyroid gland also play an important part.

The purpose of this last part of my paper is an attempt to show the relative importance of tubo-ovarian conditions, absence or faulty spermatozoa, and marked alterations in menstruation in their relation to sterility. It is the most desirable part of our therapy to administer the endocrines, either for the purpose of stimulation or for the purpose of inhibition, on the basis of a study of the individuals endocrine make-up, seeking to find in each and every case, if possible, the factors that are at the bottom of either condition. But even if this is difficult or impossible, we do know that the ovary and its secretion, both of the interstitial and of the glandular apparatus, have a decided trophic relation to the well being of the genitalia. We know that the thyroid gland bears a close nutritive value to the genital functions, and that the adrenal contex likewise bear an important part of this. As to pituitary, we know from the study of the physiology of the gland that its relation to the genital tract is close and that affections of the pituitary may influence menstruation and the development of the uterus for either better or worse. The thymus gland extract has the effect in some cases of inhibiting ovarion activity. Based on physiological study, extract of the placenta should have a quieting and inhibiting effect on overactivity of the posterior pituitary.

The correction of sterility does not, as is in the province of medicine, simply benefit a mental state, correct an ill, or save life—it helps to create life.

In the Medical Clinics of North America, Bandler tabulated a series of fifty cases of sterility. The purpose of the tabulation was an attempt to show the relative importance of tubo-ovarian conditions, absence or faulty spermatozoa and marked alterations in menstruation in their relation to sterility, and by reporting the proportion of cases cured by endocrines, to arrive at various conclusions concerning the entire question of sterility.

In this brief review, I have indicated, in a superficial way, only a few of the more impor-

tant points at which endocrinology and gynealogy come into more or less intimate contact. The field of endocrinology is the whole living body—that of gynecology, as of other specialized branches of medical or surgical science, is often confined to a special region and that is just the point upon which I would like to put a final emphasis—that the gynecologist whose range of vision is so limited as not to extend beyond the pelvic brim will not only miss much of the fascination he might otherwise find in his work, but that, encircling himself with such a narrow horizon, misinterpret or perhaps overlook clinical manifestations which are at times veritable signboards as to the therapeutics.

Gastro-Enterology

JNO. M. BELL, M.D., F.A.C.P.

PYLORIC STENOSIS

(Smithie's Clinic)

¶ In 28 per cent of common duct obstruction gross enlargement of pancreas exists.

¶ In 15 per cent of cases affected with subacute or chronic gall bladder infection the pancreas is increased in size.

¶ Out of a series of 8,581 patients with definite gastric upsets, upon whom a gastric as well as a general examination was made 698 were affected with some form of benign pyloric stenosis. Definite proof was abtained either by laparotomy or autopsy in 89 per cent of the cases.

¶ Pyloric obstruction most commonly results from peptic ulcer, gastric or duodenal.

¶ The characteristic of vomiting, associated with pyloric stenosis, is that when the diet is of moderate quantity and food of normal consistency, emesis is a routine and daily event.

¶ In cases of daily vomiting—without perceptible loss of flesh, bear in mind rumination with a neurotic background.

¶ The vomiting of pylorspasm is intermittent, in pyloric narrowing it is constant, unless the patient is on a restricted liquid diet. Full diet with narrowing causes daily vomiting.

¶ While patients with pyloric stenosis look starved, they rarely have added to this unfed appearance the evidence of systemic poisoning which rapidly dominates the picture in malignancy.

¶ In these cases where the musculature is so weak as not to permit easy vomiting there is eructation, pysosis, water-brash and regurgitation occurring late in the day.

¶ Visible peristaltic wave is apparent in about 12 per cent of cases, while tenderness on pressure in the upper right quadrant is noted in 79 per cent of cases. Jaundice is rare.

¶ If food is found to constantly lie in the stomach longer than ten hours the cause is usually organic obstruction. If only intermittently a ten-hour retention is found, there may be spasm, atony, ptosis, constipation or neurosis with or without a non-stenosing organic lesion.

J. M. Bell.

JAUNDICE

(Smithie's Clinic)

¶ Persistent itching of the skin lasting a week or more is often the first and only noticeable symptom of biliary obstruction.

¶ Intense jaundice even with progressive loss of weight and strength does not, per se, indicate malignancy of the liver.

¶ It is a very uncommon occurrence to find a patient alive, with a primary cancer of the liver, in fair strength and without ascites as late as six months following the appearance of pronounced icterus.

¶ While primary cancer of the liver is a disease devoid of acute pain crises, it is unusual to find severe jaundice without the liver being noticeably enlarged.

¶ Continued jaundice, itching, putty stools, vomiting green mucoid material tenderness over hypatic region, loss of strength and flesh, hiccough, anorexia mass in gall bladder region. Operation revealed a neoplasm pressing upon gall ducts.

¶ Jaundice developing painlessly in a man past 40 years, which persists for weeks or months, does not always indicate malignancy of the gall bladder or biliary tract. It is fair presumptive evidence, and does hold in many cases, but not all.

¶ In a series of twenty-three cases of primary carcinoma of the gall bladder recently analyzed, autopsy or laparotomy revealed gall stone in only four cases. There had been a history of intermittent dyspepsia punctuated by acute attacks of presumably choleliathis.

Carpings of the Cynic

TAKE WISCONSIN, FOR EXAMPLE

It looks like the Socialist professors and the Socialist politicians are giving the medical profession a run for their money in the state of Wisconsin. This compulsory health insurance thing is just about dry and ready to stand on its four legs and suck.

The Christian Scientists and the Napropaths, Osteopaths and Chiropractors are all aborin' in the same legal litter, and wish to have equal rights in Wisconsin with the surgeons and doctors, to sign death certificates, to prescribe medicine, to run hospitals, and to practice in 'em 'n'everything.

Then, too, the Michigan Legislature is discussing the taxing of hospitals!

A bill has been introduced in the Wisconsin Legislature to place Christian Science $3.00 Key to the Scriptures on an equal footing with surgery. Ye gods!

The various state legislatures are being flooded with proposed mushy legislation.—Ed. Ill. Med. Jour., March.

What da ya mean, "Mushy?" Decadent? Rotten? Very well then, say so!

Well now, you know there are some people who just think that the making of compulsory laws should not be

Did.

That they should be allowed to carry firearms if they wish and their own "bottle," or both, and to smoke if they choose—cigarettes if they want, in Kansas if they like, and if a war comes up they do not believe in war, they are free moral agents—'N'everything——

So there you are!

I would just like to see every mother's son who is a doctor of medicine, in Michigan or Wisconsin,—I said in Michigan or Wisconsin, pull stakes and pack his trunk and all drugs and get out of even such fine states as these and give them free reign and no medicine for five years. There would be the biggest emigration of white folks soon after—one year! that was ever known. Wouldn't you like to peep in the hospitals? No sterilizers, no bugs, no roaches! The Christian Scientist treating diphtheria and smallpox, and the Chiropractic pulling the Osteopath's leg, and the Napropaths treating the Christian Scientist for G. U. ailments if any.

In my insaner moments at times I say, Let them have it! Give them more rope!

The sooner it is more fierce the sooner it will be More Better.

Harry Nelson Jennett.

The Melting Pot

X-RAY TONSILS

The X-Ray men are reporting successful treatment for tonsils in lieu of tonsillectomy. The object of the X-Ray treatment is to wither the tonsil; it does not obliterate it.

The tonsils are rayed for four to seven minutes every two to four weeks until four or more treatments are given.

The obvious gain is the anesthetic bugaboo and the cutting and possible hemorrhage. The only discomfort from the ray is the "slight dryness and occasionally a little tenderness and swelling of the parotid gland, lasting, generally a few hours." The dangers of surgery against the dangers of the X-ray are much less in the latter. The X-ray men also claim that if the proper application of the X-ray is made the adenoids may also be reduced at the same time.

The return of either tissue under this treatment may be expected occasionally.

On the whole there seems to be possibilities in the Rayed tonsils, if it will show percentages. *H. N. J.*

CANCER A MUTINY OF BODY CELLS

L. Duncan Buckley, of New York, holds that body cells rebels against wrong conditions of nourishment in which they find themselves, and the subject is so scientifically worked out their aberrant and riotous action is pathologically plausible. The position agrees with the theory of Buckley previously advanced and never perfectly controverted, of localized tissue injured, poorly nourished, gradually reaching a condition of venous and lymphatic stasis, fed upon products of nitrogenous decomposition and undergoing a process of retrogressive degeneration.

¶J. L. Jelks of Memphis in discussing surgery for intestinal obstruction declares the factor which kills is the toxemia: therefore drain. Although the mortality is higher than in any form of abdominal pathology, an ileocostomy or colostomy adds so little to the shock already sustained and does afford drainage, which will permit the patient to live. Other necessary steps may be considered afterwards.

J. M. Bell.

PROOF IN THE BITE

According to a French scientist, fleas brought up on milk have no desire to bite. The difficulty, of course, is to tell if any particular flea you meet is on a lacteal diet or not.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald

and Electro-Therapist

Incorporating the

Kansas City Medical Index-Lancet

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All communications should be addressed to the Managing Editor.

Vol. LXI MAY, 1922 No 5

The Editors' Forum

Diabetes Insipidus: Water Intoxication.

Dr. Leonard G. Rowntree of the Mayo Foundation, University of Minnesota, addressed the Academy of Medicine, Kansas City, Mo., on the night of March 10, 1922, presenting some thoughts on the work on some subjects they have now under investigation, such as Diabetes Insipidus, and water balance of the body, and water intoxication.

Dr. Rowntree said in part that it was thought for a long time that Diabetes Insipidus was of nervous origin and now it is known to be of endocrine disturbance—due probably to a hyperactive pituitary. Pituitrin acts as a specific and will control all the secondary manifestations. It may be given by mouth, by hypo or by rectum. It controls the thirst and the polyuria.

It is not decided that pituitrin has any action on the kidneys, nor does it act through any nerve control.

The record case of diabetes insipidus is 40 liters of water intake a day and 43 liters output.

Water balance may be defined, he says, as the daily relation between the total amount of water entering the organism and the total output of water lost from the body by way of the kidneys, bowels, lungs, and skin.

That water is essential to every living cell is well known but its unique properties have not been so clearly recognized. Water is of the greatest significance to life.

Little or no water is absorbed in the stomach; it passes out almost immediately in little spurts. When taken with food, two or three hours are required. It is absorbed quickly from the intestines. It circulates in the blood or lymph stream; it may serve as a vehicle, it may be excreted by one organ, or used for chemical reaction, or act as a lubricant.

More water is ingested in food than is generally recognized. An ordinary mixed diet yields about 300 grams of water. 100 grams of fat give 107.1 grams of water.

Water Intoxication: The normal intake of water is regulated by thirst. This as a rule slightly exceeds the absolute need. In diabetes insipidus the water balance is set at a level higher than the normal. By the subcutaneous injection of the posterior lobe of the hypophysis this level is lowered immediately and the ingestion then of water in the larger amounts to which the patient has become accustomed results in marked toxicity.

Rowntree notes the symptoms as headaches, nausea asthenia, inco-ordination, and marked sweating. In dogs water intoxication was produced by giving large amounts of water by the stomach tube after a hypo of the posterior lobe of the pituitary. He has since been able to induce water intoxication in various animals without the use of pituitary. In dogs 50 c. c. of water for each kilogram of the body weight at half hourly intervals results in nausea, vomiting, salivation, convulsions, stupor, coma, within four to eight hours, and death, if the water is continued after the convulsions start. Water used may be tap water or distilled. Hypertonic salt solution intravenously after the first evidence of toxicity prevents the onset of convulsions and coma. The extract of pituitary (posterior) will remove all the chief symptoms of diabetes insipidus. H. N. J.

A Sweeping Investigation of Cults

A METHOD, most broad and fair, of demonstrating to the world the special virtues of cults generally has been suggested by Dr. David R. Strickler, president of the Federation of State Medical Boards, in his presidential address at the Congress on Medical Education and Licenture at Chicago March 8. Realizing that no man has a monopoly of knowledge, however profound his study, and admitting the possibility of virtue and wisdom in all systems of philosophy, Dr. Strickler recommends that a commission of scientists be created to ascertain the facts relative to any method of treatment in selected cases. The advocates of each method of treatment will be permitted to select the cases. The com-

nission would then make a thorough clinical study of the case, including x-ray, laboratory and clinical findings, compare records, results and preliminary findings. The commission should have a clear and open mind with the one idea of seeking truth under whatever garb and of detecting fraud with equal fearlessness. The investigation to include osteopathic, chiropractic, Christian Science or any other system whose advocates are earnestly anxious to present truth to the world and relieve themselves of any odium, fictitious or real. The results would be educative to the people and to the healing profession. The findings would be spread by public press and otherwise, full justice be given to investigators in all avenues of truth and the public be honestly informed of the profoundness and breadth of all systems of medical philosophy. The movement is highly commendable. It will lift that veil of mystery behind which charlatans hide, it will publish truth, it will put medical practice upon a normal basis in the public eye.

J. M. B.

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The Right Church—But the Wrong Pew

ON April 26, the managing editor presented the cynical editor, if any, of the Herald with a copy of a Medical Journal—the El de Siglo Medico, Revista Clinica de Madrid.

I apprehend from the binding and the paper that this is a first-class Medical Journal of Spain—as ever sailed the Spanish main.

And after a thorough examination of the printing in this number, I judge by the arrangement of the advertisements and the scientific matter on alternating pages through the body of the journal that this arrangement is necessary for ballast, to offset the grossly scientific stuff.

I read page "34" easy enough, and right opposite it in the body of the journal is page "XIX." In this arrangement I concur all right, as it did not interfere with my continuity of thought to jump from page 34 to page XIX, and my diagnosis remained the same.

I looked all through the surgical department, if any, and could not find a single bull fight operation and the only record of any case I read was La Paloma.

I have looked carefully through the journal's pictures and have selected a few choice words to describe the Spanish operation for Appendicitiencio,—here it is:

Matadore abattoir vino asma Medico director hemorroides programa cientifico. P. D. & Co. suplicando indiquen estacion destino American Money. *H. N. J.*

Passing of the Medical Record

APRIL 22 marked the passing of the last of the old independent medical weeklies —the Medical Record. The final issue as a separate publication, appeared on that date and announcement was made that the Medical Record had been sold to, and combined with the New York Medical Journal, which appears semi-monthly.

Throughout the fifty-six years of its service to the profession, the Medical Record has had the same publishers and but two editors. Dr. George F. Shrady guided its course for the first thirty-eight years and was succeeded by his assistant, Dr. Thomas L. Stedman, who has long been dean of American medical editors, and widely esteemed. The famous old firm of William Wood & Company will now devote its energies entirely to the publication of medical books in which service it has been engaged for 118 years.

It is interesting to recall that many of the most important discoveries and developments in the progress of medicine were first announced to the American profession by the Medical Record. These include Lister's method of antisepsis; Koch's discovery of the tubercle bacillus and that of tuberculin; the employment of cocaine in eye surgery; the Roentgen rays; the discovery of the antitoxin of tetanus and that of diphtheria; Madame Curie's discovery of radium and many others.

"Well done, good and faithful servant."

A Newer Medical Curriculum. Radical changes in medical education must be made and made quickly, says Dr. S. S. Goldwater of Mt. Sinai Hospital, if the application of medical science is to continue to progress. In an article in **"Better Times,"** the welfare magazine, Dr. Goldwater makes a plea for changes in the medical cirriculum which shall emphasize the study of the body from the standpoint of health rather than from that of disease. "The medical student," he says, "learns what a perfect human structure would be like, is taught that in health the human body behaves thus and so. If, at this point, one were free to ignore the traditions of the schools, one would be tempted next to direct the student to health conservation or preventive medicine. If the promotion of physical well-being is the aim of medicine, would it not seem to be logical, after familiarizing the medical student with the healthy body, to show him, during infancy, childhood, adolescence, maturity and old age, the vigor of the human body can best be maintained? Time would be well spent in the study of the dangers that threaten infancy, youth and age, in all the walks of life."

Society Scintillations

BUCHANAN COUNTY MEDICAL SOCIETY

The Buchanan Medical Society held its annual out-of-town session at Savannah, Andrew County, April 19, Wednesday. Dinner was served by the Andrew County doctors at 7 o'clock. This annual Savannah dinner is always a very happy occasion. Dr. F. H. Ladd, president of the society, officiated.

The program consisted of a six-film motion picture display, depicting the activities of the Department of Agriculture in their fight against tuberculosis, and a scientific presentation of the general subject—tuberculosis. Dr. J. I. Gibson, livestock commissioner of the St. Joseph Livestock Exchange, and Dr. D. R. Gillies, chief inspector of the Board of Animal Industry, presented the pictures. The evening was very pleasantly and profitably spent.

AMERICAN MEDICAL ASSOCIATION

The annual meeting will be held in St. Louis, May 22-26, inclusive. The local committee is making elaborate preparations for the entertainment of guests, including an open air opera in Forest Park Auditoriumm, a steamboat ride on the Mississippi, teas, automobile drives for the ladies, a visit to the Botanical Garden, and other social events, which will remind those who attend that they are in old hospitable St. Louis. We would advise our readers to take the entire week off, and spend it at this meeting; interesting clinics will be given both before and after the meeting. The railroads have granted round-trip rates of one and one-half fare on certificate plan. You must obtain a certificate from Dr. A. R. Craig, secretary of the A. M. A., Chicago .

The Missouri Pacific offers superb service for this meeting, operating five daily trains in both directions between Kansas City and St. Louis. See announcement on another page of this issue.

WESTERN ELECTRO-THERAPEUTIC ASSOCIATION

Minutes of the fourth annual meeting, held in Kansas City, April 20-21, 1922.

The association convened at the Little Theatre, Kansas City, Missouri, Thursday morning, April 20, the president, Dr. Curran Pope, in the chair.

The reading of the minutes of the last meeting was, upon motion, dispensed with, as they had been printed in full in the official journal.

Upon motion the by-laws were suspended and the chairman authorized to appoint a committee on nominations. Dr. Pope named on this committee Drs. Grover, Willmoth and Morse.

The secretary reported that the society was prospering, in spite of the untoward conditions, and increasing in membership. He predicted in another year there would be a much larger increase and an improvement in its financial condition. In view of the fact that a number of suggestions had been made, looking toward a change in the name of the association, perhaps it would be a good idea to place the matter before the members. He also called attention to the improvement in the official journal, stating that still further enlargement of its scope might be expected during the current year.

Dr. Grover offered a motion that the subject of change of name to that of Western Physio-Therapeutic Association be considered, and that a committee be appointed for that purpose. The chair named Drs. Grover, Shaw and Need.

The report of standing committees being called for, the following responded:

a. Direct and Continuous Currents, Dr. Frederick H. Morse.

b. Research, Dr. A. D. Willmoth.

c. Roentgenology, Dr. H. H. Bowing.

Afternoon Session, 1:30 o'Clock

The society was called to order at 1:30, the president, Dr. Pope, in the chair. The following papers were read and discussed:

Symposium on Phototherapy:

a. Apparatus: Dr. Frank C. Fuller, Leavenworth.

b. Physical Properties: Dr. Lynne B. Greene, Kansas City, Mo.

c. Clinical Applications: Dr. T. Howard Plank, Chicago, Ill.

Have the Ultra Violet Rays a Scientific Reason in Medicine? Dr. A. J. Pacini, Chicago, Ill.

Radium Therapy: General Considerations: Dr. E. H. Skinner, Kansas City, Mo.

The Treatment of Appendicitis by X-Ray: Dr. Wm. L. Ross, Omaha, Nebr.

X-Ray Findings and Combination Chest Conditions of Chronic Gas Cases versus Tuberculosis: Dr. Chas. E. Fitzsimmons, Kansas City, Mo., (U. S. Veterans' Hospital No. 67).

The Board of Trustees reported favorably on the following applicants, and upon motion they were duly elected members of the association:

Farber, W. D., 1810 Main St., Northampton, Pa.; Fortney, B. B., 1309 S. 18th St., Louisville, Ky., (Asso.); Fitzsimmons, Charles E., 11th and Harrison, Kansas City, Mo.; Inghram, William Herbert, Cortez Hotel, Kansas City, Mo., (Asso.); Millener, Frederick H., Lister Hospital, Omaha, Nebr.; Molzahn, E. T., Superior, Nebr.; Miller, E. A., Bunker Hill, Kans.; Morse, Frederick H., 462 Boylston St., Boston, Mass.; Neptune, J. W., Salina, Kans.; Pelle, H. E., 2509 Port Ave., Louisville, Ky.; Waddington, Joseph E. G., 610 Sherer Building, Detroit, Mich.; Well, Wm., Versailles, Mo.

Evening Session

The members met at the City Club at 6:30 o'clock, when the annual dinner was served. With the president, Dr. Pope, in the chair, the following program was carried out:

Address of Welcome—Dr. E. H. Skinner.

Response—Dr. Wm. L. Ross, Omaha.

Presidential Address: The Weakness and Strength of Physiotherapy—Curran Pope, M. D., Louisville, Kentucky.

A Discussion of the Essential Bases and the Technical Application of the New Deep Roentgen Therapy, (lantern slides)—Dr. James T. Case, Battle Creek, Mich.

Roentgen Ray Therapy in Medicine, (lantern slides)—Dr. H. H. Bowing, (Mayo clinic) Rochester, Minn.

Second Day—Friday

The association was called to order at 10 a. m., Dr. Curran Pope in the chair.

The Board of Trustees reported that the books of the secretary-treasurer had been balanced, and accounts found correct.

The report of committee on nominations was made by the chairman, Dr. Grover, as follows:

President, Dr. T. Howard Plank, Chicago, Ill.; First Vice-President, Dr. H. H. Bowing, Rochester, Minn.; Second Vice-President, Dr. M. P. Springer, Tulsa, Okla.; Treasurer, Dr. W. P. Grimes, Kansas

City, Mo.; Registrar, Dr. J. R. Shumway, Pleasanton, Kans.; Board of Trustees (2 years), Dr. Frank J. Iuen, Kansas City, Mo., Dr. Curran Pope, Louisville, Kentucky.

Dr. Grover reported for the committee on change of name that the decision of his committee was unanimous in favor of retaining the present name of the organization. Upon motion this met with the unanimous approval of the association.

Dr. Pope, reporting for the committee of federation appointed last year, said upon diligent inquiry he found that it was the consensus of opinion that the time was not yet ripe for the federation of all the bodies. He recognized, however, that good seed had been sown, and suggested that the matter be left open for continued agitation. Upon motion, Dr. Pope was authorized to still further carry on the work of the committee for the current year.

Upon motion, the association voted to meet in Kansas City, April, 1923.

A discussion followed as to the program for next year, and the association upon motion voted to accept the offers of Drs. Plank, Pope, Grover and Campbell for papers to be read at the session of 1923.

The following standing committee reported:

Static Currents, Dr. J. D. Gibson. (Dr. Gibson not being present, this report was read by Dr. S. Grover Burnett.)

Afternoon Session, 1:30 o'Clock

Physics and Therapeutics of the Direct Current and Wave with the Alternating Current (Lantern Slides)—Dr. Frederick H. Morse, Boston.

A brief report of treating Anaerobic Infections by Compressed Air—Dr. Orville J. Cunningham, Kansas City, Mo.

Operative Clinic on Malignancies—Dr. T, Howard Plank, Chicago; Dr. L. A. Marty, Kansas City. (This clinic held at the General Hospital at 4 p. m.

Addenda:

Preceding the meeting of the association, the Western School of Electrotherapy held a very interesting session of three days, with a class of sixty-five, closing with a "Cancer" evening, Wednesday, at which moving pictures and colored lantern slides were shown by Dr. A. D. Willmoth, Louisville, and Dr. D. T. Quigley, Omaha.

CHARLES WOOD FASSETT, M.D.,
Secretary.

NOTE—Errors or omissions noted in the minutes should be reported to the secretary at once. All the papers will appear in the official journal.

ISOLATE GERM OF TYPHUS

(By The Associated Press.)

Moscow, April 30.—The discovery and isolation of the typhus germ by Dr. N. Kritch, a woman, under the guidance of Professor Barakin, director of the Moscow Biological institute, is confined by Dr. Walter P. Davenport of Chicago, acting head of the medical department of the American relief administration in Russia.

Dr. Kritch is director of the laboratories of Sokolaichiesky hospital, at Moscow, where she has been engaged for two years in searching for the germ.

Announcement of the discovery was made before a conference of twenty-five Moscow dictors.

NOTE.—The Medical Herald's Kansas City office will supply any book reviewed in this department at publisher's price, prepaid. We can also supply any book by any publisher in the world. If an order for two books be sent at any one time, the purchaser will be entitled to a six months' subscription to the Herald. This plan is arranged for the convenience of our readers, and we trust it will stimulate trade in the direction of good books.—Editor.

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

The Life of Jacob Henle.—By Dr. Victor Robinson, Editor of Medical Life; 117 pages, boards, illustrated. Published by Medical Life Co., New York, 1922. Price, $3.00.

There is an inspiration and uplift in reading the biographies of great men in any profession, but the biographies of great men of your own profession have the greatest inspiration.

This charming story of the life of Jacob Henle has added charm and uplift for the doctor who for years has studied anatomical things bearing Henle's name, but who has never known anything of the man's life and character; medical phrases, such as Henele's layer, H's loop, H's membrane, H's fibrin, H's internal cremaseter, H's sphincter, have an added interest, when you have read this life of Henle, so ably done by Dr. Robinson that it reads like a novel. By all means this book should be reduced in price, a large edition issued and every doctor in the land should purchase a copy and read it.—H. N. J.

American Illustrated Medical Dictionary (Dorland), New (11th) Edition, Revised and Enlarged. A new and complete Dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Science, Nursing, Biology and kindred branches; with new and elaborate tables. Eleventh Edition, Revised and Enlarged. Edited by W. A. Newman Dorland, M. D. Large octavo of 1229 pages with 338 illustrations, 141 in colors. Containing over 1500 new terms. Philadelphia and London; W. B. Saunders Co., 1921. Flexible Leather, $7.00 net; thumb index, $8.00 net.

This is probably the best and most complete medical dictionary for the doctor's deck; it is modern and up to date. If the reviewer had his say, however, he would require all medical dictionaries—they all do it—to omit all charts, tables—table of nerves, of muscles, of arteries,—from the body of the book and put them together in the front or the back where they would be less of a nuisance when you are looking for a word or definition.—H. N. J.

Physical Diagnosis.—By W. D. Rose, M. D. Lecturer on Physical Diagnosis and Associate Professor of Medicine in the University of Arkansas; Demonstrator of Clinical Medicine and Chief of the Medical Section of the Isaac Folsom Clinic. Second Edition. Three Hunderd Nine Illustrations, St. Louis. C. V. Mosby Company. Price, $8.50.

This volume owes its existence to a persistent demand following the exhaustion of the first edition. Recent advances have been met by new chapters added and others rewritten. The clinical anatomy of the thoracic and abdominal organs have been carried a step further in this edition and the intimate correlation of anatomy, pathology and physical signs has been emphasized. New and original illustrations have been added. A chapter dealing with x-ray has been revised and amplified by Dr. Dudley E. Mackey of New York, formerly Instructor in Roentgenology in Cornell. The volume both in text and in illustration is thoroughly up to date and will follow its predecessors in keen professional appreciation.—J. M. B.

Medical Melange

PRESERVING THE HEALTH OF THE SCHOOL CHILDREN

100,000 Children Immunized from Diphtheria



(Kadel and Herbert News Service, N. Y.)

For the past months the New York schools have undergone the Schick Diphtheria test, which finds out whether the child is immune from diphtheria. This is being done by giving the child a tiny injection in the skin of the arm and then watching whether a red spot appears at this point in a few days. If the spot shows a child may get diphtheria, and then receives three more injections of a different kind about a week apart. If, in the first injection, the spot does not show red, the child is immune.

Photo shows Dr. Zingher of the Research Department of the Board of Health, New York, applying the "Schick Test" to school children (who, by the way, calls it a mosquito bite).

LIGHT THERAPY

Light therapy has met with such favorable results by recognized authority that it is very gratifying to have the endorsement of experienced men on the exceptional efficacy of the Raysum Generator as manufactured by C. F. Mills, 540-1-2 Ridge building. At the recent meeting of the Western Electro Therapy Association the sales of this deep therapy lamp supreme proved the favorable and desirable features of the mechanical construction of this article as far superior to anything offered the profession. A request for details will not in any way obligate you.

INDIGESTION

All functional forms of indigestion respond promptly to the action of Sal Carabana. In small doses, it is anti-fermentative and sedative, and at the same time rapidly empties the stomach. Continued, it removes contained material and mucus, and by favoring rapid osmosis occasions what is often a very effective cleansing of the stomach. Both increased muscular and secretory activity follow, with logically improved function.

DRIFTING

Drifting, dreaming, sailing,
Those are the things we do,
Just counting upon the morrow,
Somehow to get us through;
Looking for a rainbow,
Just around the bend,
Wishing for the hours to pass,
And for the days to end.

Drifting through the morn of life,
With eyes and conscience blind,
Reaching for the noon-time,
To see what we can find.
Dreaming, drifting, sailing,
Into the hazy dusk,
Seeing only shadows of the things,
Only the empty husk.

Hearing only dim callings
Of the things far back in the past,
When we had scorn for better things
We might have grasped;
Drifting, dreaming, sailing,
Into the mighty sea,
From which there's no returning—
Into eternity.

Ruby Fisk, in K. C. Star.

DO NOT "FLUSH THE KIDNEYS"

It is a common practice to attempt to "flush th kidneys" in certain cases of nephritis in which th secretion of urin is diminished; but experience do not justify this measure; nor does theory, for acute nephritis the use of copious drinks contr venes the main indication, which is to secure physi logical rest of the inflamed organ, renal eliminati of water being a vital, and not a mechanical, proces whilst in chronic nephritis such treatment tends increase existing edema, or to induce it if not ready present. **The time to increase the fluid gested is when diuresis begins, not before it commenced.**—Practitioner.

THE PHARMACEUTICAL CHEMISTRY SILVER PROTEIDS

Silver is a favorite gonococcide. And the man facturing chemists are doing their part to render of the utmost service by supplying compounds wh are, in the first place, effective, in the second pla non-irritating, and, finally, free from staining te dency. Soluble silver salts darken under the influen of light, as a rule; but we are offered, in a prepar tion called Neo-Silvol, a very freely soluble silv combination that does not darken as the soluti dries, but assumes a pale yellow tint; moreover, it said to be as effective as any othe silver preparati available, and non-irritating as well. Neo-Silvol used in the same way as Silvol—not only in gonorrh but in any infection of accessible mucous membra Both are supplied in powder and in 6-grain capsul and the quality of both is guaranteed by the man facturers, Parke, Davis & Company.

Whim "What is a 'dry dock?' "
Bim—"A doctor who has no wet license."

MORE HEAD THAN HEART

Mother—Jessie, the next time you hurt that kitt I am going to do the same thing to you. If y slap it I'll slap you. If you pull its ears I'll p yours. If you pinch it I'll pinch you.

Jessie (after a moment's thought)—Mamma, I pull its tail.—Life.

TRY IT IN SOME LUNG CASE

Lemon (N. Y. Med. Journal) says, "have used hosphorus with good results in all kinds of lung onditions during the past eleven years. Have found especially valuable in acute bronchitis, pneumonia nd phthisis. Not only the lung condition, but the atient's general condition, showed improvement." le suggests that a tendency towards tuberculosis ay be due to a lack of phosphorus in the nervous nd other tissues of the patient. Comp. Phos. Tonic-owd, mentioned on page 63, gives phosphorus in s free state; some remarkable results are being re-orted from its use as a nerve and general tonic; try e prescription advised by The Richardsons.

A BIT OF ADVICE WORTH WHILE

One of those busy doctors, every moment of whose aking time is spent in relieving the suffering of a ost of patients, recently had occasion to recommend one of his colleagues, who had called him in con-ltation, the use of Dionol. His colleague claimed at he had never heard of it. The busy doctor re-ied: "Then that is your misfortune, if not your ult. I would not feel that I was doing the right ing by my patients if I neglected to use Dionol. My ttention was called to it several years ago and the im made for it that it reaches and overcomes local flammation interested me to such an extent as to se me to resolve to try it. I did so, with the re-lt that I was very much surprised at the excellent sults obtained. I began to use it in other cases. I not torment myself unduly with attempts to ex-in on any scientific basis reasons why Dionol acts it does. What I wanted was clinical results and I rtainly secured them with Dionol. After I had become convinced of its value, which meant that I had become a constant user of the preparation, I ran across, in the literature, some reports of a scientific character that explained the reasons why Dionol acts. Consequently, I advise you to get acquainted with Dionol without delay. You can, if you insist upon the 'reason why' for everything, satisfy yourself that there is scientific authority for Dionol action. Or, as I did, you can make it a case of 'the proof of the pudding.' Try Dionol. Watch its effects, consider its results —and I think you will have reason to thank me for having called your attention to it."

What the doctor said about Dionol can be applied with equal force to a combination of Dionol and Iodine, which is rapidly coming into extensive use under the name of Iodized Dionol. It was a happy thought to combine such a useful product as Iodine with an equally useful product, Dionol. Iodized Dionol is particularly suitable for use in genito-urinary and gynecological cases. Interesting literature, case reports, etc., regarding Dionol and Iodized Dionol will be sent gratis to any physician on request to the Dionol Company, Detroit, Michigan.

DEATH AND BIRTH

What a ridiculous thing it is to trouble and affect ourselves about taking the only step that is to deliver us from all misery and trouble. As our birth brought us the birth of all things, so in our death is the death of all things included. And, therefore, to lament and take on that we shall not be alive a hundred years hence is the same folly as to be sorry we were not alive a hundred years ago. Death is the beginning of another life.—Montaigue.

The Management of an Infant's Diet

Constipation

Protein indigestion or the failure to take care of the casein of cow's milk may result in delayed bowel movements.

When constipation in infancy is due to casein curds it is readily overcome by employing some means of preventing the firm coagulation of the casein.

Mellin's Food

acts upon the casein of milk in such a manner that the coagulated casein is presented in a most favorable condition for the action of the digestive fluids; therefore, Mellin's Food is especially indicated in constipation due to faulty protein digestion, and results will at once be apparent if Mellin's Food is used in sufficient amount to thoroughly attenuate the milk casein.

Mellin's Food Company, Boston, Mass.

Current Comment



A FAMILIAR KEYSTONE

The Mulford Keystone, so familiar to the medical and pharmaceutical professions in this country, is also well-known in all other portions of the civilized world.

The illustration shows a corner of the offices of Stranack and Williams, Ltd., Durban, South Africa, who are the Mulford distributors in Natal.

Note the very elaborate headdress of the native.

THE FIRST STANDARDIZED, BIOLOGICALLY ASSAYED VITAMIN PREPARATION

In view of the fact that the market is literally flooded with so-called vitamin products, it is interesting to note that the Lilly Research Laboratories are reported to have begun experimental work on the subject of vitamins somewhat over five years ago, yet it was not until it was possible to offer a standardized and biologically assayed product that Eli Lilly and Company saw fit to offer such a preparation. Coco-Vitamin is the result of the years of research and is said to be the first preparation of this kind which plainly states on the label the number of units contained. Coco-Vitamin, according to the literature, contains both A and B vitamins in sufficient concentration to be effective when given in moderate dosage. Each ounce contains 16 units of vitamin B and 160 of Vitamin A. This is equivalent to the B vitamin in twelve ounces of milk and the A vitamin in one pound of spinach. Coco-Vitamin contains 40 per cent of vitamin-tested cod liver oil, 10 per cent of malt extract and 40 per cent of vitamin B extracts. It is said to be palatable when taken alone and blends perfectly with milk, making a pleasant chocolate milk drink. Send for sample. Coco-Vitamin, according to good authority, stimulates the appetite, improves digestion, prevents rickets and promotes normal bone growth and dentition in children. It is not advocated as furnishing the total A and B vitamins needed by an individual, but to supplement the insufficient amount of vitamins contained in the diet. It is supplied through the drug trade in pint bottles. Literature on Coco-Vitamin and on Food Deficiencies will be sent on request addressed to Eli Lilly & Company, Indianapolis, Indiana.

BACTERIAL VACCINES FROM A RELIABLE SOURCE

Referring to bacterial vaccines, otherwise known as bacterins, a recent writer said that those who have used them the most and longest are the very ones who vouch for their value. In particular, he reports his own satisfactory experience with a mixed bacterin in gonorrhea. And he cites Lumb, who in 1918 reported 500 consecutive cases treated with bacterins, showing that the duration of the disease was shorter than the average and recurred in only one per cent of the patients treated. Other writers in the current journals are no less certain that the appropriate bacterin is useful in pneumonia, and in rheumatism and arthritis also. The Abbott Laboratories supply a number of bacterins, both in one-dose ampules and in bulk containers holding several consecutive doses, applying to a broad range of diseases, all those in short that are commonly treated with this class of agents. One may be sure that bacterins from this source are reliably prepared as they are under the best working conditions and most careful supervision. Among the leading Abbott Bacterins are, Acne-Combined-Bacterin, Gonococcus-Combined-Bacterin. Van Cott-Combined-Bacterin and Streptococcus-Rheumaticus-Combined-Bacterin. A complete list with prices may be obtained by writing to The Abbott Laboratories, Chicago.

Fifteen per cent of all the deaths that occur in the United States and Canada are among children under one year of age. Infant mortality may be reduced 50 per cent.

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of every citizen to do his part day by day that the nation may prosper and that contentment and happiness may come to all."

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MEDICINE — SURGERY — PHYSIOTHERAPY — X-RAY

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l. XLI JUNE, 1922 No. 6

Original Contributions
(EXCLUSIVELY FOR THE MEDICAL HERALD)

LTRAVIOLET ENERGY AND ITS USE

A. J. PACINI, M. D.
(Victor X-Ray Corporation), Chicago, Ill.

UCKIESH arbitrarily divided the spectrum as follows:

Visible spectrum extends to wavengths slightly shorter than 4,000 Angtsrom nits.

Near ultraviolet will designate the region etween 4,000 Angstrom units and 3,000 Angrom units.

This may be said to be the extent of the ltraviolet spectrum ordinarily encountered ecause clear glass is, in general, opaque to ays of shorter wave-length.

Middle ultraviolet will designate the reion between 3,000 Angstrom units and 2,000 ngstrom units.

Schumann region is that from 2,000 Angtrom units to beyond 1,000 Angstrom units. his region has been studied elaborately by yman, who has revealed the spectrum somehat beyond 1,000 Angstrom units.

While these divisions are arbitrarily well hosen only for convenience in discussion they gree fittingly with the findings of Brownng and Russ reported in the proceedings in he Royal Society of London in an article entitled "Germicidal action of ultraviolet radiation and its correlation with selective absorption." These observers summarize the result of their experiments by saying that rays between the ilmits of 3,800 to 2,960 Angstrom units have no marked germicidal action but penetrate much skin; while rays between the limits 2,960 and 2,100 Angstrom units show marked germicidal action and are readily absorbed by skin. They point out that the maximum bactericidal effect is a property of the rays falling between 2,800 and 2,540 units.

Read by invitation before the Western Electrotherapeutic Association, Kansas City, April 17, 1922.

If the spectrum classification of Luckiesh is adopted, Browning and Russ' results can be interpreted as meaning that the near ultraviolet region (4,000-3,000) exerts a maximum effect which can be designated biologic; and the middle ultraviolet region (3,000-2,000) exerts a maximum bactericidal effect which increases in proportion as the wave lengths become smaller. It is not possible to furnish a generator of ultraviolet energy that will afford only one of the divisions of the spectrum referred to by Luckiesh. All generators include much of the visible spectrum and varying amounts of ultraviolet wave lengths depending upon the character of the generator and the transparency of the medium in which the generating material is enclosed.

Clinically the mercury arc quartz burners offer the most practical and reliable available supply of ultraviolet rays.

It is fairly established that the ultraviolet ray output bears a constant relation to the energy input; according to a law that the output advances as the square of the wattage input. That is, as the watts are increased more ultraviolet energy is emitted. With the advent of the sealed-in tungsten electrode burner construction there was an advance to the point where generators can accept a greater energy input and therefore emit a greater intensity output. In general mercury quartz burners operated under conditions of similar wattages emit nearly equal intensity. Sealed-in tungsten electrodes make for a sturdier construction that will withstand the high temperature incident to the luminescence; and in that manner are able to afford a greater ultraviolet ray intensity.

Ultraviolet rays are able to penetrate some minerals and substances in varying amounts. As the rays become shorter in wave lengths the ability to pass through materials becomes increasingly less. Wave lengths of the order of 1,800 Angstrom units are so easily absorbed by all materials that they fail to pass through a layer of air one centimeter in thickness. Quartz, when reasonably thin, is transparent as far as 1,800 Angstrom

units. In the Victor Air Cooled Mercury Vapor Lamps, the heat that develops volatilizes the mercury and occasions a mantle of dense non-luminous mercury vapor to envelop the luminescent filament from which the ultravioet energy is derived; so that the utraviolet rays, in the Air Cooled ultraviolet lamp, must pass first through a dense mantle of non-luminous mercury vapor and finally through the quartz container. Since the shorter wave lengths are absorbed by the thinnest material, this mercury vapor mantle is an effective barrier against the shorter wave lengths. For clinical purposes it is practical to say that the Air Cooled Mercury Vapor lamp affords a relatively greater proportion of near ultraviolet; and since this is the dominantly biologic region it amounts to saying that the Air Cooled Mercury Vapor Lamp is best suited for biologic or systemic treatment.

By an adequate Water Cooling device it is possible to condense the non-luminous mercury vapor mantle. This is accomplished in the Victor Water Cooled Mercury Vapor lamp, so that the ultraviolet energy issued from the Water Cooled outfit represents rays that are filtered only through quarts without passing through mercury vapor. This practically insures the shorter wave lengths as far as 1,800 or 1,850 Angstrom units corresponding to the middle ultraviolet region. It having been definitely established that the middle ultraviolet region exerts marked bactericidal effects, the dominant characteristic of the Water Cooled Mercury Vapor lamp is a relative preponderancy of germicidal capacity. Thus, from the structure of the lamps and from the physics involved in the transparency of media the lamps are designed so that the Air Cooled Mercury Vapor lamp is indicated for systemic, and the Water Cooled Mercury Vapor lamps for bactericidal effects.

It is strikingly remarkable to observe constantly in the usual literature furnished with some types of lamps that the Air Cooled type is for general treatment and the Water Cooled type for focal treatment. This is an improper explanation on the true effects of the lamps as there are many focal conditions that require biologic therapy and a number of general conditions that require bactericidal treatment. The more correct concept, that the Air Cooled lamp offers a maximum biologic effect and the Water Cooled lamp maximum bactericidal action, better summarizes the established differences between the Victor ultraviolet lamps and gives a quick interpretation for the proper selection of outfits in the treatment of any given condition. Workers in this country have keen appreciation of the difference that exists in the property of the two lamps and the technique is therefore different from that advocated by foreign writers. On the basis of this difference, American actinotherapists have more intelligently applied ultraviolet ray energy in the clinic. It is purposed briefly to summarize some of the indications for the natural advancement in this field of endeavor.

Specific Infectious Diseases.

Tuberculosis.

Mayer, writing from the Trudeau Sanitorium, summarizes the status of light therapy in tuberculosis by saying, in effect, "that light therapy is a valuable aduvant but must be used altogether with the usual routine treatment. In bone and joint tuberculosis, results have been more remarkable, with the closing of sinuses and both the healing of joint lesions and the re-establishment of function. Almost equal success has been met with in tuberculous disease of the skin, mouth, glands, pleura and peritoneum. In laryngeal cases some favorable results were obtained, especially by the direct application of light to the focus. Definite favorable results were obtained that no other means of treatment alone was able to offer."

In general it may be said that Ultra Violet energy is indicated

1. In the treatment of bone and joint tuberculosis in which Ultra Violet rays exert an efficient and admirable efficacy scarcely equalled by any other single agency. Tumefactions yield, pain is dispelled, fistulas are healed and dried. The action is especially rapid in children and brunette adults.
2. In renal and genito-urinary tuberculosis. Ultra Violet rays are useful in alleviating pain and restoring a large measure of renal function. Lumbar irradiations combined with tuberculin is the French method of choice.
3. Ultra Violet irradiations appear contraindicated in cases of pulmonary tuberculosis where the temperature is persistently raised; but in torpid forms, or forms tending to arrest, or when the expectoration is abundant, the Ultra Violet rays are indicated.

Curious phenomenon may be observed in the treatment of tubercular affections of children. When exposed to Ultra Violet energy in a manner that similar parts receive equal irradiation, it will be found that the part exhibiting tuberculous involvement reacts more pronouncedly than the unaffected side. Berck, in 1908, reported a similar finding while working with convalescent children at a seashore hospital in France. Strangely enough, involvements other than tuberculosis do not appear to offer the same sensitivity to irradiation; so that the reaction may be used as a diagnostic. A searching investigation into this problem would certainly yield important

linical information useful to the diagnostician nd therapist alike.

Meningococcic Meningitis

Eberson, in the Journal of Immunology, reorts his significant studies on the effect of ltra Violet rays on the antigenic properties of he meningococcus. He found that exposures sulted in favoring agglutinin response and in minishing the toxic effect of the organism. These basic findings point to a significant ethod for building up immunity against cern infectious diseases. The focal application Ultra Violet rays to the mucosa of the nasal ambers and pharynx offers a brilliant opporunity for the eradication of the meningococcic arrier, either active or passive.

Diphtheria

Eberson's principle of bacterial attenuation has been applied with a great measure of success in the case of diphtheria carriers, both active and passive. Forty carriers, unclassified, treated with the Water Cooled (bactericidal) lamp responded as follows:

20 or 50 per cent, sterile after one application.

40 or all, sterile after three applications.

This expeditious method for shortening the diphtheria carrier stage after convalescence offers great economic reward in the contagious disease hospital. It points, also, to a basis for the solution of the control of epidemic spread of the disease. Needless to mention, the bacteriologist and pathologist, availing himself of the success obtained by the general therapist, finds a remarkable opportunity for attacking the general problem of Human Infection carriers as it applies to the control of:

Pneumonia,
Influenza,
Meningitis
Diphtheria,
Streptococcic Infection.

Parasitic Affections

Bertram, Feuer and Farmer exposed 30 species of yeast like fungi to Ultra Violet rays. Like Bacteria, the yeasts were destroyed in relatively short time. It seems certain that the pathogenic yeasts invading usually the superficies of the human organism can be attacked with full expectation of success through the use of the Ultra Violet rays. In this connection, a pertinent observation is fittingly included. At equal distance from the burner, under usual operating conditions, the rays from the Air Cooled lamp (near Ultra Violet) are more destructive to yeasts than the rays from the Water Cooled lamp (middle Ultra Violet). Yeasts are slightly higher in the biologic scale. This higher organization makes them, apparently, more suspectible to biologic rays as distinguished to the effect of bactericidal rays on bacteria. Again is the important difrerence between the Air Cooled and Water Cooled lamp distinctly revealed.

Diseases of Metabolism

Rickets

Beginning with the established truth, even if empiric, that deep structures respond to the effect of surface irradiation, investigators soon studied the internal changes incident to Ultra Violet exposures. They were impressed, of course, with a peculiar paradox; that rays supposedly of limited penetrative ability, when applied over a joint invaded with tubercle, could effect as no other agent could, a recovery approximating the normal.

In recent times, attention has been directed to the treatment of rachitis and with the following tentative results:

Early cases, showing beginning calcareous changes at the epiphysis usually within the first year of the infant's life, the process is diverted and normalcy obtains following intervals of systematic irradiations covering a period of one to two months. Slightly florid rachitis, between ages of one and two years, recovery is obtained in two to three months. Markedly florid rachitis, between two and three years, remedial period occupies three to six months. Torpid or stationary rachitis, established at three to four years, requires four to seven months for its eradication. Severe osteomalatic degrees require from six to nine months of treatment. Craniotabetic changes respond rapidly. Consevratively stated, Rickets responds to Ultra Violet ray treatment alone; and if combined with the indicated dietary therapy, on the basis of vitamine deficiency or enzyme aberrancy this scourge of the child can be quickly controlled.

This subject has become a matter for study in many important centers in this country. Editorially, the Journal of the American Medical Association, March 11, 1922, says:

Rickets and Tetany

The numerous recent contributions to the study of rickets indicate that a variety of factors may contribute to the pathogenesis of the disease. Out of the confusion of the earlier investigations on the experimental rickets of animals, in which characteristic osseous defects could be induced by a diversity of dietary deficiencies, clarity is beginning to ensue. Thus, it has been found that a serious deficiency in calcium or phosphorus or both in the food intake is a predisposing factor in rickets in both animals and human subjects. However, rachitic symptoms can be averted in many instances through exposure of the sus-

ceptible individuals to sunlight or ultraviolet rays; and cures can be effected when the signs of the disorder have already made their appearance.[9] An unidentified factor contained in cod liver oil can effect a similar cure or exert a preventive influence. The current probability in respect to rickets has been summarized by expert investigators[10] in this field by the statement that when a rat, the favorite experimental animal in the study of this subject, is deprived of certain active light rays and an unidentified factor contained in cod liver oil, a pathologic condition corresponding in all fundamental respects to rickets in human beings can be produced through the diet in two ways: (1) by diminishing the phosphorus and supplying the calcium in optimal quantities or in excess, or (2) by reducing the calcium and maintaining the phosphorus at a concentration somewhere near the optimum. There is reason to believe that in the human being, similarly deprived of light and the unidentified factor, true rickets may arise through the maladjustment of the calcium and the phosphorus in the diet in the ways just mentioned.

The considerations outlined have recently led to the conviction that there may be more than one kind of rickets.[10] We are told that one is characterized by a normal or nearly normal blood calcium and a low blood phosphorus (low phosphorus) rickets. The other by a normal or nearly normal blood phosphorus, but a low calcium (low calcium rickets). It is well known that a low blood concentration of calcium is also characterictic of children suffering from manifest tetany.[11] An explanation, therefore, at length seems to be at hand for occasional but not invariable association of tetany with rickets. A recent writer[10] has pointed out that cases of rickets, even very severe rickets, exist in which tetany does not supervene, and, in all likelihood, never will. In other cases of rickets, tetany either in the manifest or in the latent form is present for weeks, and numerous observers have pointed out that it is with the less severe forms of rickets that tetany usually allies itself. If tetany is essentially an expression on the part of the nervous system of an insufficiency of the calcalcium ion, whereas rickets is the expression on the part of the skeleton of disturbed relations between the calcium and phosphate ions of body fluids, it is really conceivable how the two disorders may be simultaneously manifested. Furthermore, the curative procedures should be made to vary with the indications. Experience has indeed shown, as Shipley, Park, McCollum and Simmonds have pointed out, that a cure in rickets accompanied by tetany is most easily accomplished through the administration of calcium and cod liver oil or by calcium and heliotherapy, whereas in rickets uncomplicated with tetany the cure is most readily accomplished by means of the administration of cod liver oil or heliotherapy with or without phosphate. The assumption that tetany is merely a sign of healing rickets[12] is no longer tenable.

With reference to the chemical nature of the curative factor in cod liver oil, some novel questions have been raised by the newer studies of rickets. Heretofore it has been identified, without specific evidence, with the "fat-soluble A" present alike in this oil and in butter fat, the vitamin concerned in growth and in the prevention of the ophthalmias that are liable to occur when the factor is missing in the diet.[13] But McCollum, Simonds, Shipley and Park[14] have cast doubt on the identity of vatimin A and the antirachitic factor. Cod liver oil seems to be so much more effective than is butter fat in promoting the use of a low calcium supply by the osseous tissues that one may properly question whether there are not "two distinct organic factors operating in the nutrition of a mammal which is associated with certain fats." One of these is comparable in its action with sunlight; the other may not be. Heliotherapy, as well as chemotherapy, is entering on a new experimental era.

As for rickets, so for the other metabolic disorders, the Ultra Violet ray offers a possible solution. Tanning is a reaction in some way related to endocrine balance. Thyroid types fail to tan. They burn. There was a case of hyperthyroidism awaiting operative interference. The basal metabolic rate was high. One general Ultra Violet irradiation was followed promptly by a drop of twelve points in the metabolic rate as estimated on two different instruments by the hospital biochemist. Further irradiations could not be tried in this case because of some uncontrollable (not medical but domestic) complication. Plainly, the cogent relation that exists between pigmentation and Ultra Violet irradiation offers a promising research to the better understanding of endocrine responses, and perhaps an auto-endocrine therapy.

Diseases of the Digestive System
Gastric Secretive

It is reported from the clinics, and by able observers, that in cases of gastric ulcer, gen-

[9]Hess, A. F., and Unger, L. J.: Proc. Soc. Exper. Biol. & Med. 18:298, 1920-1921; The Cure of Infantile Rickets by Sunlight, J. A. M. A. 77:39 (July 2) 1921. Hess, A. F., Unger L. J., and Pappenheimer, A. M.: Experimental Rickets in Rats. 111, The Prevention of Rickets in Rats by Exposure to Sunlight, J. Biol. Chem. 50:77 (Jan.) 1922. Heliotherapy and Rickets, editorial, J. A. M. A. 78:195 (Jan. 21) 1922.

[10]Shipley, P. G.; Park, E. A.; McCollum, E. V., and Simmonds, Nina: Is There More Than One Kind of Ricketts? Am. J. Dis. Child. 23:91 (Feb.) 1922.

[11]Kramer, B.; Tisdall, F. F., and Howland, John: Observations on Infantile Tetany, Am. J. Dis. Child, 22:431 (Nov.) 1921.

eral bodily irradiations under ultra-violet (Air-Cooled Lamp) are followed by a relief of the pain symptom. On an occasion where a number of individuals were receiving fractional gastric analysis, ultra violet irradiations applied without regard for the clinical diagnosis, resulted in a ubiquitous and prompt drop in the total acid curve (as determined by H-ion titration against color standards).

Apparently, hyperacidity is quickly relieved in certain miscellaneous disorders involving the secretory function of the stomach. Quite likely, the mechanism involved in this reaction plays an important, though uninvestigated role in effecting symptomatic relief in gastric ulcer; and to those who subscribe to the mechano-irritant theory, assuming that hyperacid gastric secretion serves to increase ulcerative irritation and progress, it is apparent that the anacid effect of Ultra Violet irradiation may, in lesser pathologies, occasion adequate symptomatic remedy.

Diseases of the Blood
Anemia

From the viewpoint of actinotherapy anemia involves a diminution in the number of red blood cells, or in the percenatge of hemoglobin content, or both: When the pathology is characterized by a relatively great loss in hemoglobin, the condition is clinically recognized as chlorosis. Osler mentions the peculiar fact that blondes are more often affected than brunettes. It is seldom observed in the male. It is seen usually between the years of fourteen and seventeen.

These observations are sufficient to warrant a surmise of the close relation that must undoubtedly exist between chlorotic anemia and gonad endocrine aberrancy. We have already mentioned the stabilizing effect of actinic irradiations in some endocrine disorders as relate to the thyroid. There is, therefore, an obvious experimental basis for the correction of the chlorotic blood picture under the influence of Ultra Violet rays. This explains the reports that chlorosis improves readily under the influence of the actinic ray. Here, the biologic or Air Cooled rays are the most useful. It would be a masterful research to inquire into the biochemical changes wrought on the human organism through actinic insolation that activate the factors involved in reassimilating iron to form additional hemoglobin. This same mechanism could be used to great clinical therapeutic advantage in many conditions where iron metabolism is at fault.

Usual forms of anemia, non-chlorotic, and secondary to whatever cause, are beneficently influenced by Ultra Violet systemic irradiations. As a rule, each insolation is followed by an increase of 5 to 10 per cent in the red cell count; and the low color index quickly approaches unity. Obviously, where secondary anemia is a symptom subscribing to the pathology of any disease entity, the Ultra Violet rays afford prompt symptomatic relief. It is interesting to inquire into the usefulness of this hemic rehabilitation through actinic rays in the joint therapy of a given condition. As, for instance, the anemia of malignancy preparatory to deep roentgenization; or following deep roentgenization to replace the occasional blood transfusion. Actinic rehabilitation is not accompanied by shock. It relieves nausea. It exerts a general metabolic uplift; all factors greatly desired by the roentgenotherapist.

Physical Chemical Basis

It is not that Ultra Violet energy remedies all ills but that it corrects the type of pathology incident to many diseases that makes it so universal in biologic activity. Thus, its bactericidal quality indicates its use in all superficial or accessible infected foci; and this interests the:

Otologist, in tonsil infections;
Urologist, in neisserian infections;
Surgeon, in osteomyelitic involvements;
Dermatologist, in many infectious skin lesions.

This variety of applications are all extensions of a basic principle, that the bactericidal property of Ultra Violet rays, commercially successful in sterilizing potable water supplies, sterilize and immunize equally efficaciously in medical and surgical practice.

The mechanism underlying the biologic effects is less clearly understood. Modern physiology charges many of the fundamental life processes to a biotic energy centering around the colloid nucleus. There is much to support this view, especially when we realize the chemical identity that obtains between colloids, enzymes and catalysis.

Outside of biologic interests, many scientific observers are constantly recording the effects of ultraviolet rays on colloid and kindred reactions. Since these only sparsely appear in literature interesting medical men, it is fitting that they be reproduced here as furnishing a tangible laiason between the empiric observation of the clinical worker and the laboratory details of the extra medical investigator. Farmer and Parker[7] report that ultra-violet

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[12]Huldschinsky, K.: Die Beeinflussung der Tetanie durch Ultra-violetlicht, Ztschr, f. Kinderh, 26:5, 1920.

[13]Osborne, T. B. and Mendel, L. B.: Ophthalmia and Diet, J. A. M. A. 76: 905 (April 2) 1921.

[14]McCollum, E. V.; Simmonds, Nina; Shipley, P. G. and Park, E. A., Studies on Experimental Rickets, XII: Is There a Substance Other Than Fat-Soluble A Associated With Certain Fats Which Plays an Important Role in Bone Development? J. Biol. Chem. 50: 5 (Jan.) 1922.

light coagulates colloidal platinum. This seems to be in line with the action of ultra-violet light in causing metals to emit electrons. It would be interesting to know whether the action is confined to metals or whether ultra-violet light will coagulate any negatively charged sol. Svedberg[8] has prepared colloidal solutions apparently by the disintegrating effect of ultra-violet light; but later experiments[9] indicate that the silver is first oxidized and then reduced. Young and Pingree[1] have done some work on the action of light on colloidal solutions. There is a very important field, but nobody has attacked the problem systematically.

(1Jour. Phys. Chem., 17,657 (1913). 7Jour. Am. Chem. Soc. 35,1524 (1913). 8Zeit. Kolloidchemie, 6, 130 (1910); Schulze: Ibid., 15, 136 (1014). 9Nordenson: Kolloidchemische Beihefte, 7, 110 (1915).)

Hydrogen peroxide can be formed by the action of ultra-violet light on water, especially on liquid water, according to the equation $H4O2=2O2+H2$. It may also be formed by the action of ultra-violet light on a mixture of hydrogen and oxygen,[1] according to the equation $H+O2=H2O2$.

1Fischer and Wolf: Ber. deutsch. chem. Ges. 44, 2956 (1911). 2Zeit. Elecktrochemie, 16, 275, (1910); Just: Ibid., 20, 483 (1914). 4Phil. Trans., 189A, 265 (193A, 289 (1899).

More and Webster have synthesized formaldehyde by exposing an aqueous solution of $CO2$ to ultra-violet light in the presence of inorganic colloids. They have also shown that dilute solutions of nitrates exposed to ultra-violet rays are converted into nitrates with an absorption of energy. One gram molecule of nitrite formed from nitrate transforms about 10,000 gram-calories of radiant energy into the potential state—a strong endothermic reaction. This is similar to the change taking place in the plant in the formation of nitrogen compounds—the first stage in protein anabolism.

Ultra-violet rays acting for a brief period on sugar cane not only produce growth but produce an increase in the percentage of sugar. If, however, this optimum amount of radiation be overstepped, that is, if the plant is submitted to a longer exposure or to a greater concentration of rays, depression, culminating in complete arrest of physiological function, is produced. Further exposure to the rays causes death of tissue.

The physician is interested in radiant energy of this type because of its lethal influence on pathological growths and on bacteria. Ultra-violet rays have been employed as germicides in surface wounds. The penetrating power of these rays is slight, and, therefore, they can have little immediate bactericidal effect on deep-lying structures. Nevertheless their action on certain bacilli have been somewhat extensively studied. Typhoid bacilli are killed by exposure to rays of wave-leng 2100-2800 Angstrom units. Bacilli vary vulnerability, e. g., on exposure to light fr a Cooper Hewitt (mercury-vapor) lamp plac 12 cm. above them, b. mucosus capsulatus w killed in 20 secs., staphylococcus aureus in secs., while 150 secs. elapsed before the dea of b. subtilis. Lupus (tubercular ulceratio carcinoma and other morbid growths are casionally treated with ultra-violet light. is worth while noting that normal cells equa may suffer through exposure to rays over 2 Angstrom units. Digestive enzymes killed. Protection may be provided by pa ing the light through 1 per cent solutions gelatine-peptone, amino-benzoic acid, cysti tyrosine and leucine. Tyrosine has especia good detoxifying action in alkaline soluti These solutions absorb rays of wave-leng 2480-2710 Angstrom units and so reduce toxicity and bactericidal action of ultra-vio light.

These are fragmentary examples of the i portant role assumed by ultra-violet rays the biologic activity of life. Moore's succ in imitating the first steps of organic evo tion by the use of colloidal uranium, carb dioxide, water and ultra-violet rays, serve remind us again of a truth to which we passively oblivious, that the ultimate sou of all the energy upon which existence on planet depends, is the sun. To the su actinism we owe life; and from it, we m surely expect the readjustment of man m trespasses which are designated disease. this great truth do we find the explanation the new era of therapeutic success—the era radiant energy—the era of X-rays and Ul Violet Light.

The Journal of Orthopedic Surgery, Bos Mass., became a quarterly publication in J uary, under the name of The Journal of B and Joint Surgery.

The Hospital—With its October num The Hospital, a leading Engilsh weekly pa becomes a monthly journal with the title H pital and Health Review. The change in and form indicates a broadening of its fiel include public health activities.

Patient—"What are you treating me doctor?"

Doctor—"Loss of memory. You have o me a bill for two years."

Patient—"But you lost interest in case!"

Doctor—"Yes, both principal and inter

TREATMENT OF WOUNDS IN INDUSTRIAL SURGERY

DR. W. A. ROBISON, St. Joseph, Mo.
Medical Examiner, Swift & Company.

A BRIEF description of the way accidents are handled would not be amiss as the starting point in this paper. We will ;e for instance an incised wound of the ger. If it is not severe, the employee re- rts to his foreman who makes out what is lled an "accident" report. On this is given e check number of the party, name, address, ages per hour, length of service, marital state d in case of married men number of chil- en. Then follows the description of the in- y in words of the foreman and witness if y. signed by the foreman. This is only done minor accidents where the time of making t this report will not cause any danger. This port is given to the patient who then brings to the doctors office.

Before leaving, it would be well to give a ason for all of this information: First his eck number. All employes are given a num- er so that mistakes cannot be made in case f names.

Address. Party may not be able to continue s work and may be unable to report for essing next day in which case he is visited at s home and given the necessary care.

Wages per hour. If as stated above he is able to continue his work Swift & Co. have effect what is known as the Voluntary Pay- ent Plan, under which plan the employee ceives a percentage of his wages while dis- bled. Under this plan also is considered the arital state. If he is a single man he re- eives 40 per cent of his wages which in no ase shall exceed $9.00 per week. If he be arried he receives 50 per cent with 10 per nt additional for each child under 16 which no case shall exceed $12.00 per week. This mount is paid on the regular pay roll for a eriod of 12 days and no questions are asked s to liability of employee or employer. It is be understood that this is only during his rm of disability. We now see the necessity f all information. The patient has reported the office and if we deem his injury suf- cient to disable him, after dressing his wound e is given a slip to take back to his foreman, iving name, check number and department. his slip has three notations:

Able for regular duty.
Able for light duty.
Unable for duty.

Before he leaves the office an index card is made bearing practically the same information as given on accident report with the diagnosis and length of disability if any. This card is initialed by the doctor caring for him. Subsequent dressing either in the office or at home are noted on this card.

Supposing he is given no disability and decides next morning he will not report for duty.

Each morning at 8:00 a. m. the accident reports for the preceding day are sent to the time office for checking. At 1:00 p. m. they are returned and checked from file cards in doctor's office. If cards show no disability the report is then placed before the writer who makes a call to the residence, and ascertains why he did not report for dressing.

The accident report from the time office shows in addition to the fact that member is not working, whether he is a member of Employes' Benefit Association, an insurance feature. If he be a member, the class is shown which designates the amount of insurance he draws per day. Fifteen cents per week (deducted from his salary) entitles him to $3.00 per week, thirty cents to $6.00, fifty cents to $9.00, seventy-five to $13.50, and one dollar to $18.00. This, however, is regulated by salary. In order to pay a contribution of 75 cents per week entitling him to $13.50 benefits his salary must be over $22.50 per week.

On Saturday of each week, benefits for the week past or part of the week are requested. This is sent to the time office for checking to see that parties are still absent from work. Also for another purpose. Still keeping in mind the information on accident report, especially rate per hour, we are requesting for benefits, and time office then takes his name, and his percentage is then computed for the same number of days as asked for in benefits. If a party has no insurance either on account of age or disabilities which would bar him from any insurance organization a special slip is provided for, on which the number days disabilities are requested.

Having partially disposed of the executive side of the patient we will now follow the surgical side. If it be a slight incision the wound is thoroughly washed with soap and water, followed by a few dashes of peroxide simply as a detergent, and the wound then painted with Tr. Iodine pure. This causes pain but employes are trained to the knowledge that there is a great source of infection and that proper and thorough care of an injury at first dressing is all important. If incision is on fingers or parts where it can be used a wet dressing of hot 5 per cent creolin solution is applied with instructions to report after working hours for a clean dressing. Patient is then instructed how to prepare a creolin solution at home and apply two times in the evening. If the

Read before the Buchanan County Medical Society, February 15, 1922.

cases of this kind he then reports next evening after work for redressing. If there is much tendency to continued slight hemmorrhage, a chlorazine mesh is applied over the wound which is not disturbed for several days.

Head injuries from falling objects, etc. The head is shaved for a distance of at least 2 inches surrounding injury. The parts are then washed as with incisions, painted with iodine and narrow strips of gauze of about six or eight layers applied and sealed down with collodion. Patient is instructed to report next day at which time he is asked if the wound itself is giving him any trouble such as throbbing, etc. If the reply is negative he is told to come back in about two days or sooner if his wound bothers him. If the dressing looks dirty it is then removed and another applied which is not disturbed for four or five days.

Burns. Picric acid is first applied by means of gauze wet with it. This is not changed on first day and patient is either given a bottle to keep gauze moist or reports back to office for same purpose. On the second day blisters, if any, are very carefully opened and an ointment, formula of which was evolved by writer applied

Boric acid, 10 oz.
Pulv. alum, 5 oz.
Acid carbolic, ½ oz.
Eucylyptol, 1-4 oz.
White petrololum ps ad 5 lbs.

If the burn be on an extremity where the parts can be immersed in water, after the third day a plain gauze dressing is applied and a solution of normal salt or 2 per cent aluminum acetate is then prepared and patient instructed to heat the solution and immerse parts, keeping solution hot by adding more hot water, leaving parts in solution for 30 minutes. This to be done four times a day, fresh solution to be made each time. They are then instructed to wrap towels around burn to retain heat and moisture. This is done one day, next day ointment applied and day following that solutions again. I am particularly enthusiastic over this as we have had some wonderful results.

Infections are divided into four classes.

1. Failure to report for treatment.
2. Neglect of treatment.
3. Failure to comply with instructions.
4. Cause unknown.

Taking into consideration the large number of incisions and character of work, etc., our infections are very small. Where a party receives an injury and reports immediately to our office for treatment and follows it all the way through we never have an infection hence the necessity of four classes. Now failure to report for treatment. We find that a party will receive a cut or it very often happens a very slight bone scratch and as he thinks "does amount to anything," he will not report treatment. In two or three days he co down with the wound swollen, red, painful a red streak following the course of the up the arm. Cases of this kind are immedi sent to the hospital where we know that will receive the proper treatment. The fo hand as is nearly always the case is imm in a hot creolin solution fourteen hours o the twenty-four. It only requires two or days treatment to reduce the infection.

Another very annoying condition found in packing house work is an infection of skin which I have termed erysipiloid dermtis. This is always due to a slight bone scr which the party failed to have treated. characterized by redness, swelling and int itching and burning. It rarely if ever above the metacarpal phlangeal articula but may spread over the entire five finger is very annoying to say the least, equally ficult to subdue. Our patients have somet gotten dissatisfied with their treatment have gone to an outside physician, wh variably sticks a knife in them. In the co of four or five days patient comes back t with a much worse condition than he ha first.

We have figures for the last six month 1921 which show that we had 78 no time infections with 19 cases in which time lost. Of this number 93 were failure to r for treatment, two failures to comply wit structions and two neglect of treatment.

Sprains. These are the cases causing u greatest worry. A very routine treatmen sprained ankles and wrists, is hot applica for the first day or two in shape of placin fected parts in hot water every two hours, there thirty minutes each time. Part is wrapped in flannel cloths and towels. swelling has subsided under this treatme ointment of 15 per cent ichthyol is app' ie so-called sprains of the back we someti m in very deep water, a great many of theum permanent injuries to the back and pres-e ful scenes, have a very dreary outlook le ture usefulness, but it has been the exp i of the essayist that after futile attenfi his part to cure through the medium ments, strapping it and with no resu one application of a plaster commonl green backs, secured from our claim m ment will do more in 24 hours than v been able to do in months. e

Puncture wounds. These cases if th of entrance is not large enough to all introduction of a probe an incision is ma a probe of cotton with pure iodine is intro If the accident happened in the morni

atient is instructed to report that afternoon or another treatment at which time the same outine is again used. He is then instructed o soak the foot or hand as the case may be in hot water solution. This to be done twice r three times after leaving here and to be oaked for 30 minutes at a time.

We realize that modern surgery teaches us hat cases of this kind especially nails, etc., hat anti-tetanic serum should be used immediately. We have used this in only one case nd in over three years work we have never had a case of tetanus following a puncture wound.

It might be interesting to note that during the year 1921 there were handled in our office 2,310 accidents without a death resulting from accidents. There were also treated in the office for sickness 2,244 individuals. There were given 7,175 redressings and 791 calls were made to the homes of employes for the purpose of redressing.

BACTERIAL RELATIONSHIP TO STONE FORMATION

O. C. MORRISON, M.S., M.D., Carroll, Iowa.

THE geologist interprets the secrets of Nature's hidden past from his observations of the quarries. He goes back 500,000 years and, step by step, unfolds the thrilling secrets of prehistoric ages. He marks upon his sketch the places where thousands of years ago great forests stood, and tells us the charming story of a great glacier that buried the carbons of Nature's proudest kingdom that once stood erect in her leafy robe of beauty, and now Nature has this buried deep beneath the surface of our great land in the rich anthracite coal regions, for the use of man. He tells us the story that thrills us more than can any pirate tale of where the gold and silver is buried and where Nature's breast is studded with her most precious diamonds. Then he tells us of a monster age, when the air was filled with great birds, when great animals abounded, and he reconstructs Mastodons, Dinoceras and great reptiles whose nantomic remnants and footprints have been found deep in the rocks, and man's soul is deeply stirred by this story of a wonderful past.

No less interesting is the story of the archaeologist, of the early history of man's activity and his records upon cylinders and slabs of stone of what happened in the dim beginnings in the valleys of the Euphrates, Nile and upper Amazon, among the Incas Indians, who developed and used cocaine so many years ago that time has lost all definite records. From the hieroglyphics, scholars are astounded to learn how intelligent was the race even in the early dawn of history. They tilled the soil, they covered the seas and rivers with commerce, they traveled over splendid highways and have left in the great stone edifices of their day, imperishable revelations of their great knowledge. Man possesses an instinctive desire to portray in stone, the dictates of his soul's intelligence and these remain that succeeding generations may read in them of the wonderful learning of the past, and would be stirred to greater effort and inspired to "build more stately mansions," which phrase should be the watchword of all generations. The shifting sands of time have covered many of the efforts of early years, but the Pharoahs' work has stood out against time and will so stand as long as time shall last as an everlasting reminder that they were determined to destroy the chosen people.

It is enough that at one glance we gather the knowledge of the past and read their ideals from the carving in the stones and say with the archaeologist of old, truly the intelligence of a people is written deeply and plainly upon the stones of time. When thousands of years shall have lapsed and a civilization yet unborn shall walk the surface of the earth and build along her streams, they may have lost the name of Theodore Roosevelt and the Gatun locks and the Panama Canal, but they will be greatly stimulated by the wonderful intelligence of our day and, perchance, it will give them new hope to build for a better civilization for the people among whom they shall live.

We gather the information that since the beginning three great divisions have been recognized, the mineral, the plant and the animal kingdom. It may be possible that our age is first to show the steps by which the great cycle of syntheses builds the minerals into plants and these over into animal structures. If these shall live over countless millions of years, there must be some power to return the animal tissue back to a usable form, from which the cycle could be continuous.

When we first saw the little bodies called bacteria, our research work was greatly lessened. We learned that our cycle begins in the soil. Bacteria break up the rock and build a composition peculiar to its own catalytic power. Many saprophytic forms are at work, and after countless eons of years, a soil is builded. Plants take up the cycle and build nobly, that man may be an Alex Selkirk, monarch of all he surveys. His body profits by the chlorophyl of the corn and wheat and the bacterial action upon limestone for lime salts, and bacteria again disintegrates this tissue in the

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cycle finally to perpetuate the great plan of our Creator.

I have made use of this picture to show you that bacteria are the stone workers for man. They unite the free elements of the air with the carbonates, sulphates, etc., and combine the free element nitrogen to form proteids by the aid of plants. Without bacteria, the stone age would reign supreme, and man would perish from the earth.

I wonder if you will bear with me a moment while we study the work of these wonderful builders and see if they can possibly be so studied that their analytic building process and structures of thousands of years ago may be known and we may profit and feel that even these little bodies are wonderful, and if we know the process well, it will help us build a greater race and give us a nobler purpose to strive honestly that not a man shall perish who might be saved through knowledge of their power and their relation to medicine.

Over two hundred years ago, Linneaus lived and was a student of the biological laws of the mollusk. He specialized in the biological chemistry of pearls and their formation. He had been a pupil of the early Chinese, who kept secret their knowledge of the biological chemistry of pearls. The knowledge of the life habits of oysters gave a wonderful stimulus to the industry. Commerce asked our Government to aid in enlarging the oyster beds and to help spread them from Maine to Florida, and if this were accomplished, they could see no reason why beds could not be started in the Pacific. The Government transplanted a shipload, so we are told, but they all perished. They could neither form shells nor survive. Again it was tried, but this time they moved the mud bed with the oyster and found it did well anywhere in the waters of the Pacific. The biologist learned quickly that this so-called bed was alive with bacteria, which are essential to the oyster, to its shell and to its metabolism, as was life itself. The oyster must have its stone worker to help manufacture and prepare the many salts essential to its structure.

In 1898, a Japanese, Mikinato, with Mitsukuri, a collaborator, began the study of the biological chemistry of pearls for the purpose of constructing a shell free pearl that would have a perfect contour. After a careful search of the literature, he started his work. He used a nucleus of mother-of-pearl, or nacre. The nucleus was laid on the outer shells secreting epidermis near the edge of the mantle. He dissected up the thin lining and covered the nucleus with the membrane, closing it in carefully by tying the neck of the sac. In a few days this nucleus was transplanted to a second oyster by making a stab wound and carefully transferring the new nucleus to the bottom of the wound and then using an astringent on the wound. They were left here for months until a layer of the desired thickness was made of pearl upon the nucleus. In doing this work, he was as careful as possible with his technique and was greatly surprised to find that some of the pearls grew with much greater rapidity and that the colors varied. He set out to learn the reason and found that certain bacteria caused the pearls to grow faster and that certain others would change the color. He knew of the chromogenic or coloring ability of certain groups of bacteria, that some would give a carmin red, some a delicate pink, some a rich purple, and some a bright orange or delicate yellow. So speculation began and is still in progress. Some of the workers, who were of a more speculative frame of mind, began to use a needle and deposit a nucleus of foreign material and with it the fancied color-producing bacteria into the oyster's body to secure a pearl of the desired size and color. The field is interesting to any biological chemist, and from these facts the pyhsicians were attracted and experiments started in artificial production of stones in the gall-bladders of animals.

The etiology of stones in the gall bladder has engaged the attention of physicians from the time of Galen, Morgagni, Meckl von Hemsbach, etc., all of whom thought that some irritant was responsible for the formation of gall stones. Naunyn, Gilbert and Mignot, about the time of the pearl experiments, began with experiments in the gall bladders of animals. Welch isolated the colon bacillus, staphlococcus pygenes, bacillus typhosis, or some other form of infection from every gall bladder containing stones, and found no stones where there was no infection.

In 1898, Mignot published in the British Journal, these observations:

"1. Foreign bodies when introduced into the gall bladder, can stay there for an indefinite time, provided they are aseptic, without causing inflammation or precipitating the solids from the bile.

"2. Foreign bodies previously impregnated with virulent micro-organisms cause a more or less intense cholecystitis and precipitate the solids from the bile. As long as the bacteria retain their virulence, however, they cannot form a calculus, but only a sediment mixed with pus. This sediment has no tendency to cohere or adhere to foreign bodies.

"3. The bacteria must be attenuated, not virulent. This status is best obtained by growing them for some months in bile, to which

nstantly decreasing amounts of broth are lded. When sufficiently attenuated, they e no longer pathogenic when injected into e cellular tissues of animals. But by inject- g these into infected gall-bladders, stones e formed. If a nucleus is present, the de- sit is quickly manifest and stones rapidly evelop."

If sterile balls or pearl were deposited in a rmal gall-bladder, no growth of stone or eposit would be found. But if pearls, plus ttenuated bacteria, are put into a normal gall- ladder, it would cause stones to form rapidly, vithin a few weeks, and the stones would orm more slowly if no nucleus were pro- ided. We readily see that the virulent in- ction precipitating amorphos deposits, and ttenuated infection would rapidly form many tones. Stones appear in the gall-bladder dur- ng the third and fourth decades most. During his period we have most appendicitis and ocal infections. Taken with the selective ac- ion of certain bacteria for mucus surfaces, we ee that the period between the initial cho- ecystitis and the formation of stones is a period that fits logically in the cycle. The bacteriologist has long known that certain bacteria select certain body tissues, because it has enzymes that can split this tissue, that ts food is more easily obtained. Tetanus, bacillus tuberculosis, bacillus typhosus, etc., are good examples. When these virulent strains have spent their energies and many of them have become attenuated by time, it seems that the etiology should not be outside the grasp of the knowledge of man since many of the bacteriologists take these bacteria and prove it, as has been done by Rosenow and many collaborators.

The stones found in the pancreatic ducts have a similar etiology, but the work has pro- gressed more slowly, due to the character of the gland and its position.

Stones in the kidney, bladder and ureters have been those most recently studied. Dr. Brasch started the research for kidney stones many months ago. His department has fur- nished much interesting data. Dogs were selected upon which the experiments were to be tried. Attenuated forms of certain strains of streptococcus were used. These were taken from kidneys that had been previously infect- ed and that had stones present. Dogs were selected whose kidneys showed perfectly nor- mal urine and were negative to stones by x-ray. Control dogs were used to check the work. The bacteria were introduced into the general circulation by means of a syringe. The experiments were conducted similarly to those described in the gall-bladder, with similar re- sults. We know that there are many more va- rieties of inorganic salts in the urine than in the bile and would expect a greater variety of stones. Stones in the bladder and ureters are similarly formed, as are stones in the ducts of the liver.

The knowledge of stone formation will mod- ify our therapy materially for the future. Gall- bladders having stones in their lumens will be removed as a routine by all our profession and every attempt made to clear up all foci of in- fection to prevent it from being dissiminated. If the gall-bladder has stones which are re- moved and the gall-bladder left in, then we should expect stones to reform in due time as a routine. When we find stones in the kidney pelvis or in the urinary tract anywhere, we are very solicitious about finding where they were formed so that we may thoroughly erad- icate that area of infection, if possible, to pre- vent more stones from forming. We appre- ciate the significance of the bacteria's place as a stone disintegrater and builder, and accord him first rank among structural workers in this field.

Our present knowledge causes us to work with greater care and precision in every case of stones. Our minds wander back to the knowledge of the past that wisdom may be ours for the present.

The scholars of yesterday gathered in the libraries of Pekin, Alexandria and Louvain for the books that perished in the flames of a con- quering hero. Today that scientist is the greatest scholar, who can read the secrets from an unseen world and know what happened from the beginning, and use it for the better- ment of his fellow men.

THE WASSERMAN TEST IN THE DIAGNOSIS, TREATMENT AND PROGNOSIS OF SYPHILIS

A Plea For a More Conservative Interpretation

JAMES JOHNSTON SNIPES, M.D.,
Lincoln, Nebraska

ABOUT eleven years ago, shortly after I had begun making Wassermann tests, I wrote an article upon this subject, filled with all the optimism of the youthful tyro. Since that time I have continued to make the test by the thousands, but have kept quiet about the matter, while I have read and seen published so many papers on this subject that the mere cataloguing of them would comprise a volume.

The most of these articles (within the past few years, at least) have served only to muddy

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the already turbid waters and to leave us floundering in a state of uncertainty and doubt.

I have nothing of scientific value to add to this mass of literature, and my only excuse for appearing before you today is to enter a plea for a more conservative interpretation of this test, to urge a protest against the blind reliance that many physicians and the most of the laity place upon this one vague symptom in the diagnostic syndrome of syphilis.

I am purposely going to refrain from any references to the literature, and simply give you a few of my personal ideas culled from experience and study.

As soon as I became convinced that the test was not a specific one, my enthusiasm and faith began to wane until at present (and, indeed, for the past five or six years) I invariably tell my patients that the test,, be it positive or negative, alone and without corroborative evidence means nothing.

When Wassermann, Neisser and Brouck first applied the Bordet-Gengou complement fixation principle to the study of syphilitic serum, they used an antigen made from syphilitic liver and thought they were getting a specific antigen-antibody reaction. Syphilologists, as well as physicians in general, immediately wedded themselves to this phenomenon that was to be the "open sesame" to all things obscure. It was not long, however, until reports began to appear that the same reaction was obtained with non-specific antigen, made from beef heart and other normal tissue. The conclusion then was that the reaction was a lipoid one and not specific.

Yet the results seemed so uniformly positive in known syphilitics and negative in non-syphilitics that physicians still accepted it as the one thing upon which to base their leutic diagnoses

At the same time, scientists and laboratory workers silently, but none the less effectively, acknowledged its imperfections by immediately trying to find some improved method of performing the test and trying to reconcile the innumerable variations in results reported by different workers. They are still trying, but still unsuccessful. Everyone is sure his technic is best and his errors least, yet it is impossible to make results correspond.

About four years ago, I had become so confused from results I had seen and reports I had read that I wrote personal letters to a dozen or more of the more prominent syphilologists of the country and asked them the one question: "Would you diagnose syphilis upon a positive Wassermann, regardless of who made the test or how many times you received a positive report?" One man wrote fully by me: "I would not hang a cat on a Wassermann test." Every one of the others "hedged" in one way or another. In other words, if they were doing so they were not quite sure they were right, and, therefore, would not commit themselves. They were as doubtful as I, even if they did not say so.

I do not want it thought that I am in any way antagonistic to the laboratory worker, for I know his work is invaluable and that without him and the evolutionary progress he has wrought in medicine, we would be in outer darkness. I do feel, however, that it is highly improper for a clinician to depend upon any variable and non-specific test for the diagnosis, treatment and prognosis of his patients, and this is just what large numbers of us are doing. None of you would diagnose gallstones because a man had a pain in his belly, yet upon one symptom as unreliable as this you will condemn a man to the life of a syphilitic, which means to the average person a life of uneasiness; a heritage of unrest so long as he lives. I, therefore, refuse to diagnose syphilis upon a Wassermann test without corroborative evidence. And if we have such evidence, we have little need for the Wassermann except to confirm the diagnosis. We don't need a jimmy if the key is in the lock.

It is at this point we frequently become confused. We have a perfect diagnosis worked out when, lo and behold! the laboratory returns a negative report and the patient remarks, "I knew I couldn't possibly have syphilis." You can explain to yourself very easily, but making the patient see it is an entirely different proposition. On the other hand, you have a case about which you are very undecided in your own mind. Again the laboratory returns a negative, as it will do in a very large percentage of these obscure cases. This may be, and frequently is, a case of syphilis in dire need of treatment, yet you have no aid when you most need it. Neither jimmy nor key is at hand.

But granted you have a known syphilitic, with a positive Wassermann. Should the treatment be directed against this one symptom? In my humble opinion, No! Physicians in treating diseases are losing sight of the fact that they are also treating individuals, and unless we revert somewhat to the old idea of regarding our patients as such, sooner or later we are going to stumble upon the rocks.

If the Wassermann test is an antibody reaction—and that is what it is supposed to be—why should it not remain positive long after the patient has recovered from his disease? In gonorrhoea, we get a positive several months after a cure. In diphtheria, tubercu-

sis, measles and other diseases, this antibody formation persists throughout life. In fact, the whole theory of immunity is founded upon this one principle. Why, then, should we try to combat it? Knowing the uncertainties of syphilis, I am treating my patients for two or three years, irrespective of any test. Empirical, if you please, but more rational than a blind dependence upon one uncertain symptom.

Too many times, when depending upon the Wassermann test, have I seen negative tests over a year or more, then, without any warning, a flare-up of the disease. Also have I seen positive tests over years of time without any trouble. I have in mind one patient whom I know was treated for two or three years with a score or more of salvarsan injections and mercury inunctions by the hundred, without the slightest effect upon a four-plus Wassermann, but with a rapid clearing of symptoms. There has been no treatment of this patient for six years. The test is still four plus, but the patient is apparently well and happy.

I recall another case of tertiary syphilis with a perfect diagnostic syndrome except a negative Wassermann. During a course of three years this patient was restored to normal. At no time did she ever give a positive Wassermann. Neither of these patients may be well, for all I know, but in my opinion, the one is in as safe position as the other.

As I said in the beginning, I have purposely refrained from making any references to published reports, because the supply is so inexhaustible that it would be unprofitable to attempt a review of it. Suffice it to say that many of our best authorities are beginning to be very conservative in their interpretation of and dependence upon this test. The literature is accessible to all, but you may have to read between the lines to get the true significance of much of it.

My own conclusions are as follows:

1. The Wassermann test is not specific in its reaction.

2. A positive reaction is not, per se, a danger signal.

3. A positive reaction does not necessarily mean that there are living spirochete in the body.

4. A positive reaction does not record a demand for immediate treatment.

5. A negative reaction does not mean a cure, nor even that symptoms are in abeyance, but may simply mean that nature, for some reason, is unable to set up an antibody formation in that particular individual. If this latter is indeed the true reason, perhaps that individual would be better off were the reaction positive.

6. The credulity of physicians and the confidence they place in this test is causing them to lose their diagnostic acumen.

7. A positive Wassermann, be it true or false, is too often used by the unscrupulous for the sole purpose of raking in the shekels.

8. A positive Wassermann has caused many honest and conscientious physicians to treat patients for syphilis when they did not have the disease.

9. Worst of all, there is spread throughout the country, in the minds of the laity, an idea that has caused, is causing and will continue to cause an untold amount of trouble and suffering. That idea is, "If you have a negative Wassermann, you are all right." This belief is a prevalent one, and it is hard to combat. It is difficult to make the patient take the necessary amount of treatment when he knows the blood shows negative, for he cannot understand why if the disease is there it will not show. Consequently the country is full of Wassermann-negative syphilitics who need treatment and need it badly.

If you have a patient under treatment and after a few months report a negative Wassermann, that patient is filled with false hopes and is anxious to quit a burdensome treatment. If the report is still positive, he becomes discouraged and feels that you are achieving no results.

10. For these reasons, I believe that the test does as much, or probably more, harm than it does good. Therefore, I only examine the blood of my patients at rare intervals, and then do not report the results if I can avoid it.

Gentlemen, these are only my personal opinions. I leave the decision with you.

SHALL WE OPERATE ON ONE-SIDED SENILE CATARACT?

H. GIFFORD, M.D., Omaha, Nebraska

MANY men would answer this question with a somewhat qualified, but on the whole, an emphatic, No! saying that when one eye has vision good enough for practical purposes, there is generally no justification for operating on a Senile Cataract in the other eye. They contend that one eye is plenty for most old people, and aside from enlarging the field, it does little practical good; that it sometimes bothers the unoperated eye; that any cataract removal, no matter how normal its course, involves a shock which may be injurious to an old person's hea

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and that, inasmuch as such a patient may die before the second eye gets very blind, it is best to let him alone, unless for whatever cause, the sight of the second eye becomes much affected. The writer grants all of this, except the final conclusion; with this, he cannot agree, except in cases where the patient's expectancy is poor. Certainly no conscientious operator would remove a cataract when the other eye is good, if the patient's health is such that he can only be expected to live a few months longer. Under these conditions he would not operate, even if the second eye had already lost a good deal of sight. Even where the patient is expected to live a year or two, but not more, the operation should be postponed unless the sight of the second eye should also fail. But where the general health is good, the writer believes that the patient is entitled to the option of having such treatment for the blind eye as will give it the best chance for recovering sight, irrespective of the condition of the other eye. Some such patients are still active enough to desire the operation, simply to be relieved of a blind side. Others are of such a mental make-up that, no matter what is said, they are unhappy until the cataract is removed. There need be no argument as to the justifiability of operating on such patients; but many of these old people, with a well advanced cataract in one eye and a good vision in the other, are in no hurry; they have no special need for a larger field, and they will be satisfied with whatever advice one gives them. To them, the writer believes that a homily should be delivered somewhat as follows: You will get along quite well with one eye, and if indefinitely postponing the removal of the cataract would involve no risk whatever of a less than average chance, it would make little or no difference how long the operation were put off; but we know that on the average, decidedly over-ripe cataracts do not give quite as good results as those that are just about ripe. The difference in the risk is not great, but there is a stage in the development of the cataract, which gives the best chance of a good result, and the question is: Do you want the cataract removed then—no matter whether or not the other eye is good?

If you could be sure that nothing would ever happen to your good eye, there would really be very little use in operating on the other, except to enlarge your field of vision: but if your good eye should be seriously and permanently injured, either by accident or disease, and you, meanwhile, had let the cataract in the other eye go past the most favorable stage; and if, on having it operated, the nucleus should not be good, you would be fully b[illegible] The chance of such a combination of circumstances is not at all great; but if you do not want to assume even so slight a risk you ought to have the cataract removed when the most favorable stage arrives.

If then, the patient decides that he prefers to have the cataract removed, it only remains to tell him what the best stage for operation is.

It is generally taught that this is when the cataract is ripe, that is, when the cortex is all opaque and the intumescence, if any has occurred, has subsided. My own opinion is that, since time is no object, it is better to wait until the cataract is a little **over**-ripe, when the lens has not only come back to normal size, but when enough of the outer cortex has been absorbed to reduce the sixe of the lens, so that the border of the pupil begins again to cast a shadow on the cataract. *This* stage is not infrequently mistaken by beginners for the stage of immaturity; but this mistake can generally be avoided by noting that the chamber is abnormally deep and that the surface of the lens shows slight irregularities in the form of small light spots, patches or lines. The history also is characteristic. The patient will generally state that the sight has not got worse for a period of several months or years, or even that the sight has slightly improved over what it was some months before; this condition is generally reached in from three to twelve months after the stage of maturity, and if the cataract be removed within that time, it will almost invariably come out easily through a smaller-than-ordinary incision; leaving no cortex, requiring no washing out of the chamber, with little or no reaction, and with none of the drawbacks of the more pronouncedly over-ripe cataract, such as fragile zonula, tough or opaque capsules, or degeneration of the anterior layers of the vitreous.

Where the patient resides near the oculist's home, it is, of course, easy enough to have him report occasionally to determine when the proper stage has arrived. Where the patient resides far from the oculist, I find that very little reliance can be placed on the home physician's opinion as to the condition of the cataract; but if the patient will keep track of his projection, so as not to lose his sight by glaucoma from swelling of the cataract, it is fairly safe for him to wait until the change in sight for the worse has come to a standstill, and then wait three to six months longer, before returning for the operation.

To most of you it is doubtless superfluous to insist that before deciding what is the best procedure for any given cataract, it should be carefully examined under full dilation of the pupil; such dilation not infrequently reveals

peculiarities which should lead to important modification in the plan of attack. I should not mention this rule, if I had not in the past, occasionally neglected it, to the disadvantage of the patient.

I have given no consideration to immature cataract, because, while there can be no question that where a patient is slowly going blind in both eyes from cataract formation, it is perfectly justifiable to operate on one of them, it seems equally certain, except to enthusiasts for the intracapsular operation, that such an operation, no matter what procedure may be adopted, is slightly more risky than an operation on a ripe cataract.

I am also excluding from this discussion, the traumatic cataracts of the young, because I think that there is little difference in opinion as to the advisability of clearing them up, either by discission or expression, as soon as possible. The rare one-sided congenital cataract calls for an early operation, partly because, as is the case with the traumatic cataract, it is easier to get a good result if it is done before the lens begins to shrink; partly because the sooner the retina and the visual centers have a chance to work, the better the chance for useful sight. To get the best sight possible in such a case may call for a persistence in the separate training of the operated eye, which few mothers will give; but our plain duty is to give the mother a chance to train the poor eye, so that it may be of some practical use in case the other eye should happen to be put out.

Conclusions

1. Granting that extreme hyper-maturity slightly decreases the chance of good sight after a cataract operation, it follows that a patient in good health, with good sight in one eye and a senile cataract in the other, should have the cataract removed at the most favorable stage, if, after having the probabilities explained, he desires it.

2. The most favorable stage for removing a senile cataract is that of early hyper-maturity.

3. The reasoning which leads to the first conclusion applies even more forcibly to the patient who has had a successful cataract operation on one eye, and has a cataract in the other.

A HANDICAP

"Rastus, how is it you have given up going to church?" asked Pastor Brown.

"Well, sah," replied Rastus, "it's dis way. I likes to take an active part, an' I used to pass de collection basket, but dey's give de job to Brotdah Green, who jest returned from oveah thai-ah."

"In recognition of his his heroic services, I suppose?"

"No, sah. I reckon he got dat job in reco-nition o' his having lost one o' his hands."

THE STATE CONTROL OF VENEREAL DISEASES

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A A. Surgeon, U. S., P. H. S.

THIS paper is delivered principally from notes and the subject will be taken up in a more or less general way. The usual method followed and which has been adopted by practically all of the states is the Four-Fold or American Plan for Combatting Venereal Diseases; this is subdivided into medical, social or repressive, educational and recreational measures.

The best results and the ultimate control of venereal diseases will depend largely upon the dissemination of correct information. The physician is necessarily an important factor in this procedure and a great deal of responsibility lies on his shoulders, more than he has realized in the past apparently, for too frequently has the question of sex education and sex hygiene been evaded and side-stepped. A very good example of this being the oft repeated story "a dose is no worse than a bad cold" having become firmly fixed in the minds of the laity and prior to the war seldom refuted by the physician.

Under medical measures the Government and various states have found it necessary and have established clinics in many sections for the purpose of treating and rendering non-infectious the thousands of individuals who are either unable or unwilling to undergo treatment. These clinics were not established for the purpose of taking cases from the private physician nor to handicap him, rather the reverse obtains as they perform a useful function in an educational way, i. e., supply correct information concerning the nature and treatment of these diseases which is certain to be more generally disseminated as a consequence, with the result that many individuals will apply to their own physician for the purpose of ascertaining if they are free from infection or to receive adequate treatment.

With reference to diagnostic procedure, it is urged that you resort to the dark field illuminator in the examination of secretions from every suspicious or slow healing lesion on any portion of the body. A practical illuminator may be had at little expense and there should be one in the hands of a capable physician in every community, for by the recognition of the treponema with this method, which is preferable to the examination of the stained specimen, prompt treatment can be instituted thereby aiding markedly in the cure of syphilis.

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It should be needless to state that the diagnosis of gonorrhea should be based upon laboratory procedure because we do have occasional non-specific infections which may resemble gonorrhea clinically and as it is a very serious matter to err in the diagnosis of gonorrhea as well as syphilis. An important technical point in connection with the diagnosis of gonorrhea is the preparation of the slide, and I wish to call your attention to a method utilized by Dr. Palmer Findley who makes use of the fine pipette in obtaining secretions for smears from the urethra, cervix or Bartholin's glands and then depositing same upon the glass slide with care and gentleness in distribution, thereby avoiding a false microscopic picture as so often follows the use of the swab method through the breaking up of cells and consequently altering the morphological appearance. If the pipette method is not followed the wire loop should be, and the cotton swab never. As regards staining, the Gram method should be routine.

Concerning treatment much might be said but time forbids. In gonorrhea the various silver salts still hold a front place, especially the proteinate salts along with the silver nitrate where indicated, the albuminate salts being usually of much less value. The flavine preparations (acriflavine and proflavine) along with mercurochrome have not come up to expectations with the possible exception of selected cases and their use is therefore not encouraged. Where irrigation is used, this should be administered by the physician. Solutions of protargol are used for this purpose as well as potassium permanganate and occasionally other preparations. Topical applications and instillations are useful. Vaccines have been of very little, if any, value in this disease, however, the serobacterins seem to possess value in the complications which may arise rather than in the original local involvement. The guide as to progress and cure in gonorrheal cases should be based upon laboratory findings rather than the clinical phase of the case. One should hesitate to make a definite statement as to cure prior to repeated negative laboratory findings following cessation of treatment and the use of provocative applications or instillations in conjunction with mechanical provocation as indicated in the individual cases.

We must rely principally upon two remedial agents in the treatment of syphilis, the Arsphenamine group and Mercury, treating each patient individually rather than attempting to follow a "cut and dried" method. The result will depend largely upon the promptness with which the treatment is instituted as well as the adequateness of same. "The earlier treatment is instituted the greater the probability cure." Mercury is best given by inunctic where it can be controlled and proper admini tration assured. Otherwise the intra-muscul or epifascial method of injection is indicate The intravenous administration of mercury h no advantage over the above methods whi it has the distinct disadvantage of impairi the veins to the extent that they become ter porarily, if not permanently, unavailable f continued intravenous use which is very apt result in handicapping the administration Arsphenamine or Neo-Arsphenamine.

It is impracticable to set a minimum tim limit for the treatment of syphilis, certainly n case should be under treatment and observ tion less than two years and preferably fiv Your attention is invited to another phase i the treatment of syphilis which is of impo tance to both patient (who should come first and the physician. I have reference to th question of finance. It is hoped that you wil not miscontrue my position as an attempt t regulate or establish your fees but the expe rience of others as well as myself has bee that the question is a very important one i connection with the treatment of venereal dis eases and especially syphilis. One leadin syphilographer of this country has definitel stated that he believes it a crime to charge large fee for a few injections of Arsphenamin or Neo-Arsphenamine and then leave the pa tient with the idea that he is cured becaus the patient's finances are exhausted. Man cases of this nature have come under our ob servation with the result that we also condem the procedure believing it not only detrimen tal to the patient but likewise the public an the medical profession. Let me cite a cas encountered in my own practice some tim since: Patient was supposed to have receive two intravenous injections of Salvarsan at on hundred and fifty dollars per injection an when the physician (?) was informed that pa tient's funds were limited, the patient was as sured that no further treatment would be nec essary as the blood test (probably the sin method) was negative. Can you vision even hardened "profiteer" countenancing the above procedure May I suggest a practicable meth od which does not pauperize the patient but rather tends to uphold his self respect and that is the adoption of a contract between the patient and the physician on the basis of the patient's ability to pay, such a contract to be for a period of not less than one year, payments being made upon weekly, monthly or other basis as may be mutually agreed upon, the indigent cases being referred either to clinics or to the local Health Departments or authorities who are properly charged with the

e of this type of patient irrespective of the ease with which he may be afflicted.

The true physician by his real scientific and iologic interest in the patient will have not ly a co-operative and satisfied patient as a nsequence of this method of handling cases t will in addition be a much more capable ysician in other lines because of his increased lity to not only sell himself but to deliver goods. Inefficiency is sure to be exposed d efficiency rewarded inevitably when you ndle any problem in a straight forward busi-ss-like manner.

The social protective or repressive measures e utilized principally for the purpose of in-biting prostitution and methods followed ould apply equally to both female and male -you know we do have male prostitutes. Some ake the position that inasmuch as red light listricts have been abolished, resort should be ad to prophylaxis through the use of indi-vidual packets but this has been demonstrated to be a very inefficient and unreliable proce-dure, not at all comparable with prophylaxis as administered in the army. Infected pros-titutes should be incarcerated either in De-tention Homes or Custodial Farms which are provided with some efficient vocational train-ing system in order that the individual when released, and this only after careful, repeated negative findings, may be returned to society as an asset rather than a liability. Many of these individuals are mental defectives and some should therefore be placed in institutions for feeble minded and never released upon so-ciety if we hope to achieve results in the con-trol of venereal diseases.

Reference was just made to the abolition of the red light district. How many realize that we have a greater number of houses of pros-titution today than we had in the past but they are of a different type—the portable or four wheeled type—I refer to the automobile, which includes quite frequently taxi-cabs. The prob-lem of handling this particular type of pros-titution has not been solved though many theories have been advanced. Law enforce-ment is essential in this connection.

One of the principal aids in social protec-tive work is the Social Worker who should be thoroughly trained, not necessarily as a nurse, but if of the right type, it is an asset to have had either a nurse's training or a pre-medic education. The Social Worker pro-duces the best results through follow-up meth-ods and in getting the contacts under obser-vation or treatment as the case calls for. This type of work always requires considerable tact, however, occasionally an aggressive attitude is productive of marked results. The exercise of good judgment or common sense should un-derly all investigations.

The physician, no matter what his chosen phase of medicine, should have or develop a social mind to a greater or less degree, espe-cially does this apply to those who handle ven-eral disease cases (each specialty in medicine must consider syphilis as an ever present pos-sibility and gonorrhea in many) and all phy-sicians should perform their distinct duty in educating the public to the necessity of re-quiring a physical as well as a mental examina-tion prior to the issuing of a marriage license and at this point your attention is called to the fact that the public are reaching a stage where they are seeking information along this partic-ular line and it behooves the physician to take the correct position in this matter to the end that we may establish a definite basis for the upbuilding of our nation mentally and phy-sically. The physical examinations made dur-ing the war have shown that too large a per-cent of our population is below par.

The physician is sometimes placed in a very embarrassing position with regard to venereal disease existing in the married and he assumes a great responsibility in these cases. The question "Is the mate infected?" arises, also "Is this an original infection extramaritally contracted, an acute flare-up or recurrence of premarital origin?" How shall the same be handled with reference to the mate? These questions call for a great deal of careful thought and action but in any event the mate should not be neglected and certainly should be examined, even if necessary to indulge in a "white lie" to accomplish the purpose. This question must be handled with a full considera-tion of the type, temperament and disposition of the patient and mate.

Educational methods have to do with sex education and sex hygiene in addition to sup-plying reliable information concerning the ven-ereal diseases. Stress is laid on the necessity for beginning this education at a very early age in the child, also the fact that this is properly a duty of the parents and in the efforts to spread correct information use is made of films, slides, charts, lectures, pamphlets, cir-culars, etc. Time will not permit going into details of educational or recreational methods. Concerning the latter, ample provision should be made for athletics and playgrounds for youths, also good literature.

Establishment of community centers, se-curing the co-operation of community civic and like bodies, including the Y. W. and Y. M. C. A., Parent Teacher's Association, Rotary, Kiwanis and other clubs are important factors in furthering both the educational and recrea-tional programs. Here again the physician can

and does play an important part, one which has and is greatly appreciated but there is much yet to be done. Therefore, your most hearty, continued co-operation and renewed support is earnestly solicited and urged. Progress is being made and venereal diseases can be controlled.

THE EXPERT WITNESS AGAIN, OR, YET?

S. GROVER BURNETT, A. M., M. D.
Kansas City, Mo.

ABOUT every medico-legal new moon some legal light has a reformation fit in the delirious sequel of which the medical man is flayed in an I-told-you-so declamation in the legal, medical and public press, till the discredit cast is most generally believed to lie with the medics entirely. Even the legal presentors of the subject matter have so often and seriously told the old, old story that they are credited with actually believing it themselves. In great oratorical flights the opposing consul has so made his last and final play to the jury, painting wordy words in shades and touch of artistic fascination, paraphrasing the medical witness as the negation of truth, embodying him in the stale descriptive:—"Liars, d— liars and experts."

A plea for the unmaking of the evils of the made to order expert witness appears in the American Bar Association Journal, 1922, page 171, by Mr. C. E. McBride. His correctives are: 1st. A plea for selection of expert witnesses by the court. 2nd. A plea that said witnesses be paid for services by the state or county or that said fee be made a part of the costs.

The first plea is commendable but should be amended to read: The medical expert witness shall be selected by the court, by the court's empowered initiative, independent of either attorney in the case; that all subject matter to be considered by the witness must be submitted to him by the court exclusively.

Such a promulgation of power invested in the court would leave the mind of the witness free of clouded suggestions, ready to consider the cold, clear facts as first hand, unmussed-up information to the jury. This should shorten the procedure, dispense with "sharp practice" and legal tricks hidden deep down in the colorful battleship gray and the illucid smoke screen, emphatically and impressively laminated in oratorical strides between the jurymen and what they should or should not know.

The second plea would be a boon to both the job-seeking, self-advertising, self-serving, self-made over night expert and the scholastic, retiring physician, made a witness and dragged from his business, because of his professional relation to the case and that his scientific mein may lend a veneer to a legal venality that amounts to a scramble for $$ by the defense and a prosecutor's glory by the prosecution. It's illegal to enter into contract with the medical rough-neck or the scientific medical man, arrayed against each other, to pay a specified fee prior to services rendered. Neither is it legal for the medical witness to charge a fee for testifying in court, so after the medical witnesses have undergone the usual argumental castigation, after the honorable Judge has flung his fling at the "uncertain and contradictory character of expert testimony that has weakened its force at the trial," et cetera, after being disregarded by the jury, after the sting of the press publicity criticism and misrepresentation, after the attorney has his obligation memory lapse, they are permitted to claim the usual witness fee of 1.50 (see Burnett versus Freeman, Kansas City Court of Appeals) as provided by statute stipulation in Missouri and probably in most states. Thus, if Mr. McBride can have a fee fixed by statute, though it may be small, it will be larger than nine-tenths of these witnesses ever get. A prominent alienist states that in the medico-legal conflicts arising in his 35 years handling of the insane about 5 per cent of the attorneys using him showed a gentleman's obligations in efforts to compensate him for services. He says the tendency to an anxiety psychosis development on the part of some of the legal fraternity over the enormous fees medical witnesses are promised, but never get, is purely a pseudo-psychosis for lime-lighting purposes and is, therefore, of good prognosis.

Mr. McBride says "experience has taught" him that experts "selected by the party" they are to serve, "where testimony in his favor is assured beforehand," said experts are "influenced by the fact" that they are so "employed" and are paid to have and maintain a theory so zealously that they lose the impartiality of the lay witness and that their testimony must be "scrutinized with great care."

Again: "The present system of presenting the testimony of experts is poorly calculated to assist in arriving at the truth; that the witness has invariably given assurance that he will swear to an opinion favorable to the party calling him and usually receives a fee proportionate to his estimate of the value of his opinion to the side for which he testifies."

Further: "Expert opinion evidence" has been used so much that it is viewed" with a great suspicion by both courts and juries; and it "has become very plain that where opinion evidence is admissible" any attorney can go out and get the "opinion evidence desired by paying the market price thereof."

How He Does It

The lawyer goes shopping for opinion evidence with a descriptive hypothesis, the basis of his hypothetical question he will present to the expert. He knows it's only in part true; but he has suggestively interviewed his many witnesses and they have promised to testify to these facts (?). No lawyer ever goes to trial without careful recitations of what he expects to prove, his basic theory of facts to win the case. This is recited over and over till the ordinary witnesses not only believe it but the lawyer seems to believe it and they enter court as partisans ready to perjure themselves like gentlemen, within the law, of course, reiterating the facts as recited to them. All this gleaning of evidence the shopping word artist presents to the desired expert with:—admitting all these facts to be true (and we have witnesses who will testify to such facts) what would you answer? The answer, favorable of course, but who tells the lie, the witness with the words put in his mouth or the lawyer who puts the words in his mouth?

And while the foregoing "market price" purchase was formulating the opposing attorney was adjusting his word pictures in recitation seances with his lay witnesses and complacently watching his suggestions soak in till he is assured of "proven facts" by disinterest, $1.50 per day witnesses, testifying impartially, out of which testimony he builds his hypothetical question for his expert witness to answer. Again who tells the lie? Both expert witnesses have answered the lawyer-made hypothetical questions, accepted as facts as presented to them.

But here the fur begins to fly. Each opposing attorney, with all the noise there is in him, declares with all the expletives forgotten by Webster, that the opposing expert witness is a monumental liar! Testifying for money! Muddying the water to confuse the "gentlemen of the jury!"—that they may not see what is to be seen and that they may see what is not to be seen; to win the case at any cost, is the slogan. The dignity of the law must be upheld (out loud); under his breath "the dignity of the law be d—!).

In other words every member of the American Bar Association knows that Mr. McBride is boldly letting the cat out of the bag once more, that he is presenting the cold, exact, plain truth when he says: "The present system of presenting the testimony of experts, in the courts, is poorly calculated to assist in arriving at the truth." He presents, gently, the old, "hard boiled" fact of two legalized conspiracies running on a one-man pugilistic track into the very solar plexus of the court; and when the battle is over the two experts, who lied in two different directions, are white capped out of court and every spectator adds a feather to the tar in their exit march.

Therefore, it is self-evident that Mr. McBride's suggestives are corrective if amended to make the court all powerful so that no attorney shall interview and submit suggestive matter to the witness other than that approved by the court. The whole matter is up to the legal profession to forever eliminate the present objectionable procedure and its statute makers are aware of this fact. The organized medical profession would welcome an ironclad corrective that would enable medical men to deal with medical facts instead of dealing entirely with questionably assembled hypotheses. Until this is done the old descriptive defamation should be made to read: Liars, d— liars, Experts and Lawyers.

Gastro-Enterology

JNO. M. BELL, M.D., F.A.C.P.

PERNICIOUS ANEMIA

(Smithie's Clinics)

¶ The long held opinion that this form of anemia is of obscure or unknown origin needs qualifying.

¶ Schneider and others have shown that in hemolytic or pernicious anemia there is evidence of increased hemolysis or blood distruction, from over-activity of the normal spleen.

¶ Moffitt of San Francisco has demonstrated that in pernicous anemia we have to deal with a terminal result of the action of hemolytic bacteria—the causative agent is infection.

¶ In the anemia of nephritis there is rarely a plus color index, rarely a pronounced diminution of red blood cells. It is unusual to find pronounced poikelocytosis, polychromatophilia, nucleated red cells and lymphocytic increase with decreased blood plates.

¶ Pilcher has shown that in practically all hemolytic anemia, gastric contents and stools show slight or gross evidences of blood pigment.

¶ In a given case a hemolytic streptococcus was grown from teeth extracts; from tonsil remnants and antrum washings streptococcus, pneumococcus and staphylococcus were isolated.

¶ The etiologic factors which create over activity of the spleen are multiple infection of teeth, antra, tonsils and gall bladder.

¶ Whole blood transfusions, after the method of Dr. Nelson M. Percy are given. At intervals of a week or ten days 800 to 1,200 c. c. of blood are given. When the patient's condition warrants it, teeth, tonsils, spleen, gall bladder, appendix as indicated are removed.

¶ From a series of cases transfused and operated upon by Dr. N. M. Percy at Augustana Hospital during the past five years 20 to 25 per cent of patients have continued in excellent health; 40 per cent have been markedly benefited.

¶ Patients in whom there is evidence of cerebral or spinal cord disturbance do not do well under any form of treatment. In such cases prognosis is limited.

¶ The average red cell count has been about 1,300,000 with hemoglobin rather more than 30. In the absence of central nervous system damage, the poverty of blood count does not limit the prognosis.

¶ Individuals with cord lesions do poorly, they steadily progress to helplessness in spite of being able to maintain a fairly high red cell count.

SIGMOID OBSTRUCTION

(Smithie's Clinics)

¶ Fully 85 per cent of acutely developing tumors of the large bowel distal to the splenic flexure are malignant.

¶ Malignancy at sygmoid is marked by acutely developing constipation, with occasional periods of remission due to sloughing of the tumor with resultant widening of the lumen of the gut.

¶ Obstinate constipation which is progressive rather than acute, is suggestive of a lesion associated with considerable scar tissue or a tumor of similar nature, fibroma, fibromyoma, tuberculoma, syphiloma, encapsulated foreign body (bezoar stone), or cyst.

¶ Syphilitic gumma of the descending colon and sygmoid is extremely rare. Syphilitic lesions of the colon are usually multiple and associated with the history and findings of lues. They are often associated with long continued bowel hemorrhages.

Carpings of the Cynic

UP TO DATE

THERE is a big problem unrolling itself today before the medical profession. How is the doctor to meet it? What is he to do for himself? The question of trailing the public, of keeping up with it, of knowing its point of view, its changing beliefs, its changing life, its education at the hands of the pseudo-practors and pseudo-teachers, and then the great volume of true scientific knowledge that is being absorbed by the public from published articles in the magazines and the public press and modern books.

The doctor has simply got to read and converse with his eyes and ears open and adjust himself with every faculty alert.

Recently the writer had put to him a startling question by a primipera; she was a bookkeeper, a ward school graduate (only), a mother of a 24-hour-old baby that had a cerebral hemorrhage and convulsions from forceps delivery, and as soon as he had entered her room, she said, "Doctor, are you going to transfuse? Of course you have to examine the blood and that takes time—but, doctor, do it as soon as you can"—and I had not mentioned anything of treatment of the case to her. It was all her own idea. But it shows that our patients are posted in their reading and thinking.

Recently I picked up a catalog of a publishing house. After glancing through the classification of the books published by them—"Drama," Fiction," etc., etc., I came to "Science," and "Miscellaneous," and found listed such books as "Psycho-analysis," "Evolution," "From Monkey to Man," "Eugenics," "Birth Control," "What Every Girl Should Know," "On the Threshold of Sex," "The Love Rights of Women," "Aspects of Birth Control," etc., etc.

All of these and a thousand more are going into the hands of the general public, our patients; and how is the poor, overworked, under-paid, criticized doctor to stay within ear shot of the live questions of the day unless he reads and studies like h—.

Not only that but such magazines as Judge are making us the butt (and muzzle) of their jokes; the Cosmopolitan is publishing scurrilous articles on the medical profession; the Christian Science publications and their special publicity agents are growing bolder every year in their outspoken disbelief and braying. Even a Kansas newspaper has the habit; for example:

We have noticed that a man's value after
th depends a great deal upon whether he
killed by a railroad train or in the usual
at the hands of the doctors."—Altoona
bune.

o that—

Vell, doctor, what are we going to do about

CLUBBING OF THE FINGERS

WE observe this condition in many diseases and yet we do not understand its cause. We reason that it must be
to some circulatory stasis or obstruction
vascular congestion and may be explained
due to mechanical effects. It may be bi-
eral, it may be unilateral; it is usually the
mer. The two most common findings as-
iated with clubbed fingers are heart dis-
e (usually congenital) and tuberculosis, or
least some suppurative process of the lung,
ich is chronic. However, clubbing in both
nds may also be observed in liver diseases,
d in chronic syphilis (congenital), obstruc-
n of the pylorus or aesophagus.

A unilateral clubbing may be due to a sub-
avicular anurism, or to pressure from the
ad of the humerous being dislocated, or to
owths in the axilla.

Whether toxic factors play an important
t in causing clubbed fingers is as yet prob-
matical.

NOTES ON PITUITARY

THE ramifications of the pituitary function take us afield into the realm of the internist, the neurologist and the opthalogist, the surgeon, the pathologist,
—and the patient!

Disordered function is the chief pituitary
dy.

These disorders may be classed as, (1) over-
ction of the anterior lobe; (2) underfunc-
n of the anterior lobe; (3) overfunction of
e posterior lobe; (4) underfunction of the
sterior lobe; (5), perverted function of one
both lobes.

Hypophysis and pituitary are considered
her synonymous.

Of the over functions of the anterior lobe
have resulting such conditions as giantism
acromegaly "which are commonly asso-
ted with hyperplasia or adenoma."

Of the underfunctions of the anterior lobe
have resulting dwarfism, a recent case of
ich showed almost complete loss of the an-
ior lobe.

Of the overfunction of the posterior lobe we
derstand but little: We have lessened sugar
lerance, increased basal metabolism, etc.

Of the underfunction of the posterior lobe we have a large group of disorders such as "in Frolich's syndrome and similar disturbances of metabolism, cardiorenal vascular regulation, and sexual characteristics.

Of the perverted function of one or both lobes we have mixed or transition cases, "perversions of functions already referred to or those cases which have not shown a preponderance of symptoms attributable to any one lobe."[1]

Krumbhaar's Conclusions: Acromegaly is due to or follows hyperfunction of the anterior lobe after ossification of the epiphyses. After Acromegaly is developed the pituitary lesion may undergo cystic degeneration. Pituitary tumors may exist for months, even to the extent of destroying both lobes, without giving obvious signs of so-called pituitary disease.

[1] Dr. E. B. Krumbhaar, Med. Clin. N. A., November, 1921.

Harry Nelson Jennett.

WHAT THE WIND TELLS

You'll miss the singing of the bird—
The joy sweet Summer's bringing.
But the Wind sings just as if it heard
The Winter-chimneys singing.
It's telling tales to you and me
Of all the "good old times" to be.

It's singing of the harvest days
With Plenty smiling 'round,
With pilgrims on the pleasant ways,
To lands of promise bound.
Sing, Wind of Autumn! far and free,—
Sing of the "good old times" to be!

—Atlanta Constitution.

Governor-General Leonard Wood has started an intensive campaign to improve health conditions in the Philippines. Circulars setting forth the causes of various diseases and methods of stamping them out have been posted throughout the islands. Four necessities for better living conditions in the Philippines mentioned by Governor-General Wood were. More hospitals; more dispensaries; better distribution of medicines; additional nurses.

Death of Dr. Wyeth (By the Associated Press).—Dr. John Allen Wyeth, founder of the New York Polyclinic Medical school and hospital, one of the first post graduate medical schools in the United States, died suddenly May 28 of heart disease, two days after the seventy-seventh anniversary of his birth. He was born in Guntersville, Ala.

Dr. C. Lester Hall Stricken.—The many friends of Dr. C. Lester Hall of Kansas City will be pained to learn that the doctor suffered a stroke while attending the meeting of the American Medical Association in St. Louis, the speech centers being paralyzed. His condition is considered critical as the Herald goes to press.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald

and Electro-Therapist

Incorporating the

Kansas City Medical Index-Lancet

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The Editors' Forum

Psychology of the Only Child: Illustrative Case

A MOTHER sat at a "party" in the home of the writer. There were present only adults and a few young children. Her son, age six, sat astride his mother's lap, facing her. The mother was observed to be repeatedly kissing the boy, laughing boisterously. The boy was responding affectionately and, one might say, voluptuously.

The attention of the "crowd" was held by the display. Evidently the seance was of common occurrence at their home.

The writer's interpretation of what he saw was that the mother was proud of her boy, was affectionate, and wished to show the affection of the boy for her.

After some study of the affair there seems to be a psychological reason for the display—the fireworks. Many questions arise:—What will be this child's sexual development? What will be this child's relation to others, to his playmates, and in time to other women? Will he be able to adapt himself to the normal life of his playmates in feeling, in reciprocal relation and acts, in naturalness of thought and action? Will his excessive gratification and relation with his mother thwart a normal sex development? Is there here the making of a paranoiac, or of a pervert?

The only child, born of rich parents, sent to private schools and who thus misses the great leveling influences of our democratic public schools, is a psychological study and often becomes a psychological problem. I do not mean to infer that the only child is a failure but that the only child will be grossly indifferent, as a rule, abnormal (?).

There are probably two classes of only children,—Confucius, is an example of an only child who was good; Nero, an example of the other kind.

Some of the principles underlying a study of this subject may be reviewed.

Jung[1] says that father-image and mother-image remain permanently engraved in the mind and act as standards for estimation of men and women that later enter into this person's life and that it is easy to show that our behavior toward our fellow beings depends mostly on our early relations with our parents. Brill[2] says, "We unconsciously endeavor to fit every stranger into one of our latent parental images and our likes and dislikes depend in a great measure on the success or failure of such correlation. The first woman the little boy loves is his mother and the first man the little boy loves is his father. The little boy idolizes his mother and supplies her with that part of poetic love which she no longer gets from her husband. The mother calls her little boy sweetheart and tries to realize in him her ideal of the man. The same thing takes place between the little girl and her father. Normally, however, these parental ideals vanish with the advancing age, when the growing child begins to project his love on strangers. The boy no longer thinks that his mother is the prettiest and loveliest woman in the world; but he evinces an interest in other persons of the opposite sex. Psychoanalysis of normal persons shows beyond any doubt the enormous influence of unconscious parental complexes. It explains the important mechanisms of transference as well as many of the peculiarities of the love life." "Parental influence may often be strong enough to inhibit materially the individual's relation to the other sex. Thus, too much and prolonged affection on the part of the mother is apt to cause undue conscious or unconscious attachment to the parents, and thus prevent the child from going through the various stages of its psycho-sexual development. The sexual impulse of childhood is auto erotic or objectless. The child knows no other sexual object than himself and gets his gratification through the erogenous zones of his own body. As it grows older we have the so-called latency period, during which the greater part of the sexual excitation is utilized for aims other than sexual, viz., the formation of social feelings and the future sexual barriers. Between autoerotism and the object love there is an intermediate stage which has been desig-

(1) Jung: Symbole and Wandlungen der *Libido*. Jahrbuch f. Psychoanalysis, Vol. II.
(2) Brill: Psychoanalysis, 3rd Edition.

ıated as narcism. Freud tells us that every ıtage of development of the psychosexual life ›ffers a possibility for 'fixation' which may esult in a type of character. Fixation in ıarcism may cause paranoia or homosexuality, and that fixation in autoerotism may lay the foundation for dementia praecox. By giving the child too much love, mothers often prolong or cause a fixation in the various stages mentioned. This naturally occurs very often in only children, who, having no one with whom to share their parents' affection, are overburdened with love. The same is true of favorite children who are subjected to the same conditions as only children during the impressionable periods of their existence."

Brill, who has examined for study hundreds of these only or favorite children, says they fall into two classes, (a) general and (b) specific:

"(a) The adult only child is a very poor competitor in the struggle for existence. Having been carefully reared and constantly watched by his loving mother, he remains forever 'mamma's boy'. He is devoid of those qualities which characterize the real boy. He lacks independence, self-confidence and the practical skill which the average boy acquires through competition with other boys.

"Owing to the fact that the only boy constantly associates with grown-ups he is usually precocious even in childhood, and as he grows older he finds it very hard to associate with persons of his own age."

Spoiling and humoring the only child to every little whim, kissing away his every little pain, "Has its evil consequences in adult life, for the slightest deprecation, hardly noticeable by the average person, is enough to throw him into a fit of depression and rage lasting for days or even for weeks. An only daughter attempted suicide because her best friend received more attention than she at a social gathering.

"It is due to the undivided attention and abnormal love that the only child gets from his parents that he develops into a confirmed egotist. He is never neglected in favor of sisters or brothers. He is the sole ruler of the household and his praises are constantly sung. Thus he becomes vain and one-sided and develops an exaggerated opinion of himself. In later life he is extremely conceited, jealous and envious. He begrudges the happiness of friends and acquaintances and he is therefore shunned and disliked."

"(b) The specific findings are still of greater interest. Of 400 cases observed there were 172 men and 228 women, ages 18 to 68. The predominant feature in about 36 per cent of my cases was the abnormal sex life. Most of them sought treatment for homosexuality, psychic impotence (men) and sexual anesthesia (women): there were also some exhibitionists, voyeurs, sadists and masochists and 18 per cent suffered from the various types of dementia praecox."

He says that there was a marked prevalence of only or favorite children in those classes.

"The foundation for one's later erotic life is mostly laid by the parent of the opposite sex. It primarily depends on the mother whether the son will pass through normally the various stages of psychosexual evolution. If for some reason she prevents him from giving up his infantile erotic activities by encouraging him to look for his love outlets in her only, he will perforce remain sexually speaking infantile and hence abnormal. It is quite obvious that abnormal love in early life hinders the normal sex evolution. It either keeps alive or later revives some of the early sexual activities. The boy cannot transfer his libido on other women because his mother stands in his way. As a rule this is accomplished quite innocently under the guise of maternal care. Such mothers discourage social intercourse with the opposite sex because consciously they wish to preserve their son's purity, unconsciously they are extremely jealous of any other woman."

Brill goes on at some length to show that the above in a measure explains the proverbial mother-in-law difficulties, that unconsciously they want their sons for themselves and are jealous of every other woman. A sex jealousy pure and simple. He says:

"The majority of only children do not marry at all, or they frequently marry some near relative whom they unconsciously identify with their parent image."

After reviewing the Jewish race in the light of an only child the only and favorite child of Jehovah described in the Bible as stiff-necked, spoiled and overbearing and considering themselves superior to every other nation (the orthodox Jew) he notes that a study of the history of the Jews shows their enforced isolation was the result of an early voluntary clanish exclusiveness, very like the only boy raising "who at first refuses to associate with others because he believes himself superior to everybody else, and who is later excluded from social relations because he is misunderstood and disliked."

They each, the Jew and the only boy, readily assimilate when the enforced barriers are removed.

The only child must not be considered a hereditary impossibility but an environmental fatality. The stamp is indellible and should be very early circumvented.

The fond parent does not see danger ahead, does not realize the pit-fall set for the child; that as a tree is bent,—that the early, very early training is the foundation for perverted love and perverted sex, that then the premature stimulation makes the child later incapable of controlling his sex life, that the habit of engorging the little children with filial love cannot be continued and therefore love becomes perverted. "And if the parents are shocked at the later manifestations of love and try to exterminate the whole impulse they reopen or keep alive some of the components and partial impulses of sex that are part of the infantile sexuality, and thus usually making neurotics, perverts or inverts."

H. N. J.

DOUBTS DARWIN'S THEORY

Not long ago Dr. J. M. Coulter, professor of botany at the University of Chicago, lectured at the Westport high school in Kansas City in the university extension course. He also doubts Darwin's theory. He said in part: "In the last few years there have been scientific disproofs brought against their theory which really do make the position questionable. The first of these is this: In all the years which scientists have watched the growth of species there has never been a natural development which changed the identity of the species. Second: The species which have been developed by man revert to their original form as soon as man takes his hands off them. Third: The fittest do not survive, as Spencer and other Darwinian advocates have argued so long. It could more truthfully be said that the lucky survive than that the fittest survive. Fourth: The fluctuations in type are not of great enough importance to make for the survival of certain individuals over others."

PROHIBITION ECHOES

Dr. Paton lectures on neuro-biology at Princeton and says that prohibition in the long run is bad "because sustained self denial is dangerous." His theory is that being everlastingly good puts a strain on the nerves and "such a continuation of self denial on the part of the individual always results in a nervous or mental breakdown." Any bootlegger can offer consoling information to the professor, and denying one's self alcohol does not ALWAYS cause breakdown. William Jennings Bryan is 60, never tasted alcohol and is very vigorous. This writer saw a member of the French Academy of Sciences 100 years old that never touched wine. A young Frenchman thought he would try it, and told his friends he was 100 years old at the end of the first week.

Arthur Brisbane.

THE COUNTRY DOCTOR

In rural districts the medical profession is not properly represented. Thirty years ago there were two or three doctors in every township in the thickly settled states. Now there is about one to every two or three townships. One doctor to a township six miles square cannot answer emergency calls. This is a serious condition, so serious that in New York state the biggest organization of the farmers, the Grange, proposes the erection of a hospital and a home for a physician in every community.

Medical service is a necessity of life, and if the exodus of doctors from country to town and city continues, it is only a matter of time until the government will have to provide doctors, as the New York Grange proposes. The reason for the exodus is plain. Country practice is hard. Collections are difficult. Financial rewards are small. In the cities, on the contrary, physicians do well. They get adequate fees and have good streets to travel on when called by patients. A survey of the earnings of physicians in large towns, many villages, and the cities, would, we doubt not, show the profession abundantly prosperous as a whole. They have learned to provide for their future, in marked contrast to the old-time country doctors who, as an exchange enthusiastically avers, "have done more to ennoble their profession and make it useful to humanity than all the illustrious specialists put together."

This may be truth or error. But the country has not paid enough for its medical service to hold it. The old-time country doctor wore himself out for a mere living, treated innumerable cases for nothing, and was often imposed upon by his patients. That is why the present generation of medical men has been abandoning rural life.—Jour. of Commerce, Chicago.

Dr. Clark Resigns.—After nearly seventeen years of untiring service as secretary of the Medical Association of the Southwest, Dr. Fred H. Clark has retired, and will e nter the United States Public Health Service, being located at the Veterans' Hospital No. 79, Dawson Springs, Kentucky. The work of Dr. Clark in this association since its organization seventeen years ago, needs no comment. He has been faithful and indefatigable, and the news of his retirement will be learned with great regret by the members. Dr. William H. Bailey of Oklahoma City will carry on the work of secretary and make arrangements for the fall meeting in Hot Springs, Arkansas, October 3, 4 and 5.

Society Scintillations

ESTERN SCHOOL OF ELECTROTHERAPY

'Physiotherapeutic Week in Kansas City" opened th intense interest and closed with exhuberant en-asiasm.

The general expression of those in attendance was the effect that the course of instruction as given r the school left no doubt in their minds of the fficiency of physical measures in the practice of edicine.

Each and every instructor played his part in a anner which commanded the interest and appre-ation of the class.

Dr. Pacini, instructor in actinotherapy, in his arming and delightful manner, never ceased to in-rest his listeners in his talks on the physiological tion and therapeutical application of the ultra-olet rays. His knowledge of the subject and his ility to present it in a pleasing manner endeared im to all who were fortunate enough to hear his asterful presentation of the subject.

Dr. Morse, notwithstanding his spontaneous humor nd enjoyment of a good story, presented the sub-ect of direct and sinusoidal currents in a masterful nanner, and his demonstrations of apparatus com-nanded the interest and attention his subject de-erved. His moving pictures, depicting the move-nent of muscles under the influence of the Morse Wave, accompanied with his comprehensive lecture, nade a lasting impression upon the minds of every-ne present. None contributed more to the success f the meeting than Dr. Morse.

Dr. Bennett, teacher of physiotherapy of national ame, was busy every minute in dispensing informa-ion from his wonderful storehouse of knowledge. His solution of the problems from the query box llustrated his familiarity with all branches of physio-herapy.

Dr. Greene, instructor in dermatology, held a clinic n which he presented several patients and gave a practical demonstration of the application of physio-herapeutic methods in many dermatological condi-tions. His lectures and demonstrations proved his thorough understanding of the subject.

Dr. Plank, the wizard of surgical diathermy, added no little to his fame as an operator by the success-ful removal of several cancerous growths at the City Hospital. His popularity with the members was exemplified in his unanimous election to the office of president of the association.

The absence of Dr. Gibson was greatly deplored by members of the class, as well as many patients who came from distant parts of the country to con-sult him.

Dr. Grover, as usual, gave an instructive series of lectures on the fundamentals of Electrotherapeutics. The doctor has the happy faculty of passing on to the students the knowledge gained by many years of experience in actual practice. Of special inter-est to the class was Dr. Grover's demonstration of his method of reducing high blood pressure.

Wednesday evening, Dr. Quigley demonstrated the progress of development of cancer by means of ani-mated moving pictures. Great credit is due the doc-tor for acquainting the public with the cancer prob-lem by means of this innovation.

Dr. Willmoth read a timely paper on the surgical treatment of cancer and presented many colored lantern slides illustrating its many forms.

H. J. Chapman, Jr., Speed, Kansas; Wm. H. Ingram, Kansas City; H. Muller, Davenport, Iowa; E. T. Mulzahn, Superior, Nebraska; W. D. Farber, Northampton, Pa., and A. L. Berggren, Beverly, Kansas, members of the class of 1922, braved the mysteries of the "green room," and came forth the happy possessors of diplomas conferring the degree of Master of Electrotherapeutics, issued by the National College of Electrotherapeutics.

Dr. Grover is now at work on the plans for next year's school, and many features will be added which will be of great value to the class.

MISSOURI STATE MEDICAL ASSOCIATION

The sixty-fifth annual meeting was held in Jefferson City, May 2, 3 and 4, and the following officers elected for the ensuing year:

President, Dr. A. R. McComas, Sturgeon. The other officers elected were: First vice-president, C. H. Powers, Joplin; second vice-president, Frank I. Ridge, Kansas City, third vice-president, Dr. W. C. Gayler, St. Louis; fourth vice-president, Dr. E. C. Callison, Kirksville; fifth vice-president, Dr. L. M. Edens, Cabool. Dr. J. Franklin Welch, Salisbury, was re-elected treasurer, and Dr. E. J. Goodwin, St. Louis, was re-elected secretary. Two delegates to the American Mdical Association were elected: Dr. A. W. McAlester, Jr., Kansas City; Dr. W. J. Ferguson, Sedalia.

Dr. J. Franklin Welch was elected treasurer for the twenty-sixth consecutive year, and this event was made the occasion of a special order of business in the house of delegates. Short speeches were made eulogizing Dr. Welch, by Drs. J. N. Jackson, W. W. Graves, W. H. Breuher and H. E. Pearse.

Joplin was selected as the next place of meeting.

AMERICAN MEDICAL ASSOCIATION

St. Louis proved herself in every way worthy of the title, "The Friendly City," in its recent entertainment of the American Medical Association. The committee of arrangements performed its duties in ideal form; the meeting places were conveniently grouped; the sessions well attended. The registration, 5,128, makes this session one of the largest in the history of the association. The following officers were elected 1922-1923.

President-elect, Ray Lyman Wilbur, San Francisco; vice-president, Willard Bartlett, St. Louis; secretary, Alexander R. Craig, Chicago; treasurer, Austin A. Haden, Chicago; speaker of the house of delegates, F. C. Warnshuis, Grand Rapids, Mich.; vice-speaker, Rock Sleyster, Wauwatosa, Wis.

New York, Washington, San Francisco and Atlantic City extended invitations to the association for the next meeting. The vote of the house of delegates resulted in the choice of San Francisco; thus California has conferred upon her the double honor of president and meeting place of the association for 1923.

MEDICAL SOCIETY OF THE MISSOURI VALLEY

The thirty-fifth annual meeting of this association will be held in St. Joseph, September 21-22, under the Presidency of Dr. Paul E. Gardner, New Hampton, Iowa. Headquarters and meeting place, Hotel Robidoux. Several men of national reputation will be in attendance, and a symposium on "Cancer" will be one of the features of the first day's session. Arrangements are in the hands of a capable committee, under the chairmanship of Dr. Floyd H. Spencer. The subcommittees appointed by the Buchanan County Medical Society are as follows:

Meeting place—H. W. Carle, E. S. Ballard, H. K. Wallace. Finance—J. I. Byrne, Caryl Potter, W. J. McGill. Hotels—F. X. Hartigan, G. A. Lau, J. M. Allman. Entertainment—H. S. Conrad, J. J. Bansbach, W. L. Kenney. Ladies' entertainment committee—Mrs. A. L. Gray, chairman.

Members desiring to present papers will kindly send their titles at once to the secretary, Dr. Charles Wood Fassett, Kansas City, Mo.

THIRD INTERNATIONAL CONGRESS OF THE HISTORY OF MEDICINE

The congress will be held in London, under the presidency of Sir Norman Moore, from July 17 to 22, 1922. Meetings will be held at the Royal Society of Medicine, the Royal College of Physicians, the Royal College of Surgeons, also at the Wellcome Historical Museum, where there will be an exhibition of objects connected with the history of medicine, surgery, and the allied sciences, including ancient manuscripts, early printed books, pictures, sculptures, and engravings, ancient surgical instruments, medals, etc.

AMERICAN PHYSICIANS MEET AT ROCHESTER

The American Congress of Internal Medicine and the College of Physicians held its sixth annual meeting in Rochester, Minn., during the week of April 2. The program included four days of clinical work and conferences at the Mayo Clinic and a two-day session at the University of Minnesota School of Medicine. Changes in the constitution and by-laws of the organization have been agreed upon which, according to the statement of Dr. Frank Smithies of Chicago, secretary-general of the organization, will place the practice of internal medicine on the same high plane ethically that surgery now enjoys through the efforts of the American College of Surgeons. The requirements for fellowship in the American College of Physicians are as follows: Each must be a graduate of a medical same view to the convenience of traffic and of conat least five years before receiving his fellowship. sumption that the map of the map tree is marketed good standing of his local, state, or national societies. He can be in no way connected with any organization which commercializes the practice of medicine. In addition, it is required that the applicant for membership be engaged in teaching or research, in charge of a hospital of 100 or more beds, or affiliated with medical or laboratory departments of the United States or Canadian Army, Navy, or Public Health Service. In default of these attainments, he must have submitted a clinical report of fifty patients who have been actually under his care.

A SPECIAL SUMMER COURSE

A special summer course of six meeks for the training of X-Ray and Laboratory Technicians is announced by the Midwest Training School of Kansas City in this issue. The courses are open to both men and women. The School had an interesting exhibit at the A. M. A. meeting in St. Louis. Their exhibit elicited more favorable comment than any other exhibit. We heard many physicians extending congratulations and arranging to send their assistants and nurses for special training. The school is established on a sound basis, has been in operation over a year and is, as far as we know, the only school in America conducted by ethical physicians for the training of assistants and technicians. Further information about the courses, which begin June 19, may be had by addressing Dr. Frank Hurwitt, president, 3110 Independence Avenue, Kansas City, Mo.

The Doctors' Library

"Next to acquiring good friends, the bes acquisition is that of good books."—C. C. Colton

Practical Organotherapy.—The Internal Secret in General Practice. By Henry R. Harrower, M. third edition; rewritten and enlarged. Octavo, 416 cloth, $1.00 net, 1922. The Harrower Labratory, 68, Glendale, Calif.

A remarkable book on a remarkable subject, b remarkably persistent author,—cutting criticisms annihilating obstructives in the path of progress nabobs in high places, notwithstanding. Phonogra and telegraphy, by wire and wireless, and radio c certs and most scientific wonders of our day emana from Psychopathic garrets, of course, from the intellectual viewpoint. So why not the working repair of misstepping internal secretions be viewed the same knowing ones who judge much but creativ do less?

No parts of the human organisms are more sential to the integrity, functional co-ordination a co-operation and to the tissue chemistry on whi life is dependent, than are the organs of the intern secretion. While men of scientific mien are dipl matically bigsticking the whole matter from Gona to Pituritary, some of them "eating crow" go ca fully, (?) others of equal scientific trend are earnes working to know and to overcome the disharmo of endocrine glands untuned by disease and evo tional retrogression of function. Ambitious thusiasm necessarily oversteps and must be critica readjusted. A characteristic of medical progress to overdo, create a panacea and then undo in a peri of restrospective readjustment. Even now the clusion of all the wind, water and unproven fa from the field of medical therapeutics would le but little remaining to justify our self-imposed e istic pretensions.

So in Dr. Harrower's new book he has given the Alpha and Omega of endocrinology to date, gleaned from every medical angle. With no p tense at completeness, his efforts are to give an derstanding of clinical pictures and then with spec emphasis the aim is to teach the general physici how to apply his therapeutics. This knowing *ho* to administer correctives is read between the *lin* throughout the book. The general physician can n ignore this information and hope to succeed. The i formation on non-organic hypertention is priceless.

The negative criticism is two-fold: The inco pletely dissembled and assembled facts of endocrinol gy which future study must perfect; and appologe cally, a criticism of expression refinement, the t frequent use of "I" and "my," offering the "friend enemy" solace, but easily correctible. This bo is worth while.—S. G. B.

Recent statistics indicate that the one classificatic in which tuberculosis has not decreased is that adolescent girls. Fashions in dress may have so share in this, but more likely it is because more you girls are now working in offices and factories.

NOTE.—The Medical Herald's Kansas City offic will supply any book reviewed in this department a publisher's price, prepaid. We can also supply an book by any publisher in the world. If an order fo two books be sent at any one time, the purchaser wi be entitled to a six months' subscription to the Her ald. This plan is arranged for the convenience of ou readers, and we trust it will stimulate trade in the di rection of good books.—Editor.

Current Comment

THE DOCTOR

e Gospel reads of Luke, the loved physician,
d still throughout the human gospel
life and death and birth
ey stand, these men—on guard,
d we step, unafraid, into the valley—
ecause they hold our hand;
d feel the shadow of it on our eyes
ll undismayed, because they stand
side us all the way, and draw us back;
less we step beyond—
o the Day. J. P. W.

IN THE WORKSHOP AND FACTORY

e development of industrial medicine and sur- has brought many special demands to the medi- practitioner. First aid work fills an important t in these new lines of practice and as a conse- ce the demand for an efficient, non-toxic and ly antiseptic is one of the most constant. The cal men who use Dioxogen have no trouble in direction, however, for they have learned to ap- iate its unique advantages as an antiseptic for ine surgical purposes.

In fact, extended experience in practical every-day ery has conclusively demonstrated that peroxide ydrogen is peculiarly adapted for cleansing in- d wounds, or dressing fresh cuts or abrasions.

But it is primarily essential to make sure that the peroxide of hydrogen employed is free from any residual impurities, or ingredients which can interfere in any way with the unrestricted release and full potency of its active constituent, pure oxygen. It is the possession of these properties in such a marked and uniform degree that has made Dioxogen the standard peroxide of hydrogen. Because of its greater volume of pure, nascent oxygen, which far exceeds U. S. Phar. requirements, no other antiseptic is so prompt in its control of suppuration, so gratifying in its promotion of tissue repair, or so satisfactory in every way to use.

A supply of Dioxogen in the workshop clinic and a bottle in the first-aid chest or surgical grip gives the attending physician the gratifying assurance that he is prepared to meet any demand for antiseptic treatment.

A NEW BENZYL COMPOUND

Since Dr. David T. Macht brought benzyl benzoate forward, the research chemists of The Abbott Laboratories have been investigating a number of other benzyl compounds. For effectiveness, Benzyl Fumarate was found to surpass them all. Besides, it has the advantage of being a practically tasteless solid, easily made into tablets, nor is it likely to set up epigastric distress. As an antispasmodic, it is more effective than either the benzoate, the stearate, the cinnamate or the succinate in the same or smaller doses. It may be had in 5-grain tablets.

This represents a signal advance in the therapy. With Benzyl Fumarate, better results may be expected, surer relief obtained in conditions of pain, dyspnea and looseness of the bowels due to spasm

The Management of an Infant's Diet

Diarrhea

The importance of nourishment in intestinal disturbances that are so common during the warm weather is now recognized by physicians, and it is also appreciated that the nutrition furnished must be somewhat different than the milk modification usually supplied to the normal infant.

Food elements that seem to be particularly well adapted, mixtures that are suitable to meet the usual conditions, and the general management of the diet, are described in our pamphlet—"The Feeding of Infants in Diarrhea"—a copy of which will be sent to any physician who desires to become familiar with a rational procedure in summer diarrhea.

Mellin's Food Company, Boston, Mass.

of involuntary muscle, as of the uterus, the bronchial rings and the intestines. The fact that the drug is practically harmless is, furthermore, a good point in its favor. A new leaflet on Benzyl Fumarate may be obtained by writing to The Abbott Laboratories, Chicago.

"CRAZY-LAX"

For the readier and easier distribution of Crazy-Water in quantities, sufficient to meet the demand, and as a measure also, of universal convenience and economy, Crazy Water is now reduced by open kettle evaporation of the natural water from our wells —nothing added—and shipped broadcast. Crazy-Lax is the prevalent, popular and economic form in which the medicinal waters of the Crazy Well may be used in those cases where elimination is necessary, such as rheumatism, constipation, liver disease (not organic), stomach disease, diabetes, brights disease (particularly in early stages), cystitis, insomnia due to toxemia, etc. It is put up in the form with the a hospital or recognized institution. He must be at He must be a licentiate in the State wherein he resides, or engaged in practice or scientific research in least 25 years of age and have received his diploma school of the first rank. He must be a member in venient and most economic form in which any strictly natural laxative and medicinal waters has ever been offered to the profession.

By placing a large dose of Crazy-Lax in a glass of clear fountain soda, or other pure carbonated water, or any pure water, the result is a sparkling, invigorating and refreshing drink.

The sulphates of sodium and magnesium combined as they are in these concentrated mineral waters assure a thorough cleansing of the bowels with no unpleasant sensation or effect and continued doses do not create a habit. Conditions being the same, the effect of a given quantity is always practically the same, whether used for a long or short period of time.

Crazy-Lax may be secured direct from the Crazy Well Water Co., Mineral Wells, Texas., or from any druggist, and if your druggist does not handle it write us for information.—The Crazy Well Water Company, Mineral Wells, Texas.

THE RATIONAL TREATMENT OF RESPIRATORY CONDITIONS

That the sudden, and often extreme variations met during our Winters in the Northern section of the country, do exert a pronounced influence on the respiratory organs, the mucous membrane in particular, is an established fact. The resulting derangement of the general, as well as local, pulmonary circulation, however, temporary, predisposes the lung and bronchial tissues to bacterial infection. To state it more explicitly, the germs that are more or less constantly present in the nose and mouth, often find conditions in the deeper respiratory tract, following extreme atmospheric changes, favorable to their onslaught—and pathologic processes follow as a natural consequence.

Since these "favorable conditions" consist chiefly of a lowering of the cellular activity and resistance, it is obvious that treatment to be effective must be able to stimulate the general circulation, correct tendencies to local congestion, and promtply raise the activity and tone of the tissues of the respirator organs, as well as of the whole organism.

It is the capacity, therefore, of Gray's Glycerine Tonic Comp. to accomplish the foregoing, that makes it so serviceable in bronchial and pulmonary affections. Used at the first sign or symptom of irritation or congestion of the mucous membrane of the air passages, Gray's Glycerine Tonic Comp. quickly increases the tone of the local tissues, regulates the circulation and by promoting cellular activity—local and general—raises the resistance to a degree that means the pronounced relief, and often the complete control of the processes set up by the invading bacteria. It is a common experience to have the condition arrested at once, but if it has progressed too far for this, convalescence will nevertheless soon be established, with satisfactory recovery following without delay.

Gray's Glycerine Tonic Comp. has a well defined field of use in all respiratory diseases and many practitioners have come to look on it as their most potent and reliable remedy in this class of ills. Winter colds and coughs that are prone to linger will often respond to its influence when everything else has proved valueless.

BENZYL STEARATE—A NEW PALATABLE SOLID BENZYL ESTER

Of the two benzyl esters investigated by Macht both of them volatile oily liquids, benzyl acetate was not satisfactory for oral administration because of its objectionable flavor and an irritating effect upon mucous membrane. Benzyl benzoate, the other liquid ester, being somewhat less irritating and less objectionable, was selected for therapeutic trial. Efforts were made to disguise its disagreeable taste and the penetrating and persistent perfume-like odor by administering it in elixirs, oils and alcoholic solution. In none of these have the objectionable features been wholly overcome. The Lilly Research Laboratories, after long experimentation, found that it was possible to produce a benzyl ester that was both oderless and tasteless. Most noteworthy, however, is the fact that this solid ester, Benzyl Stearate, is equally effective as benzyl benzoate. In seeking a method of exhibiting this decided improvement over benzyl, no agent seemed quite as satisfactory as chocolate, and the result is Dulcets of Benzyl Stearate, palatable chocolate squares, each of which contains fifteen grains of tasteless, odorless Benzyl Stearate. Dulcets Benzyl Stearate will be eaten with pleasure by both children and adults. They are indicated in pertussis, hiccough, dysmenorrhea, biliary, renal and intestinal colic, bronchial asthma, angina pectoris and in other conditions where excessive spasm of smooth muscle may indicate a relaxant. This product is non-narcotic. The antispasmodic action is exerted on smooth or unstriped muscle relaxing hypertonicity and spasm. Pain due to spasm of smooth muscle is usually relieved promptly by Dulcets Benzyl Stearate. Dulcets Benzyl Stearate are available in packages containing twelve tablets individually wrapped in foil. They are supplied through the drug trade and should be kept in a cool place.

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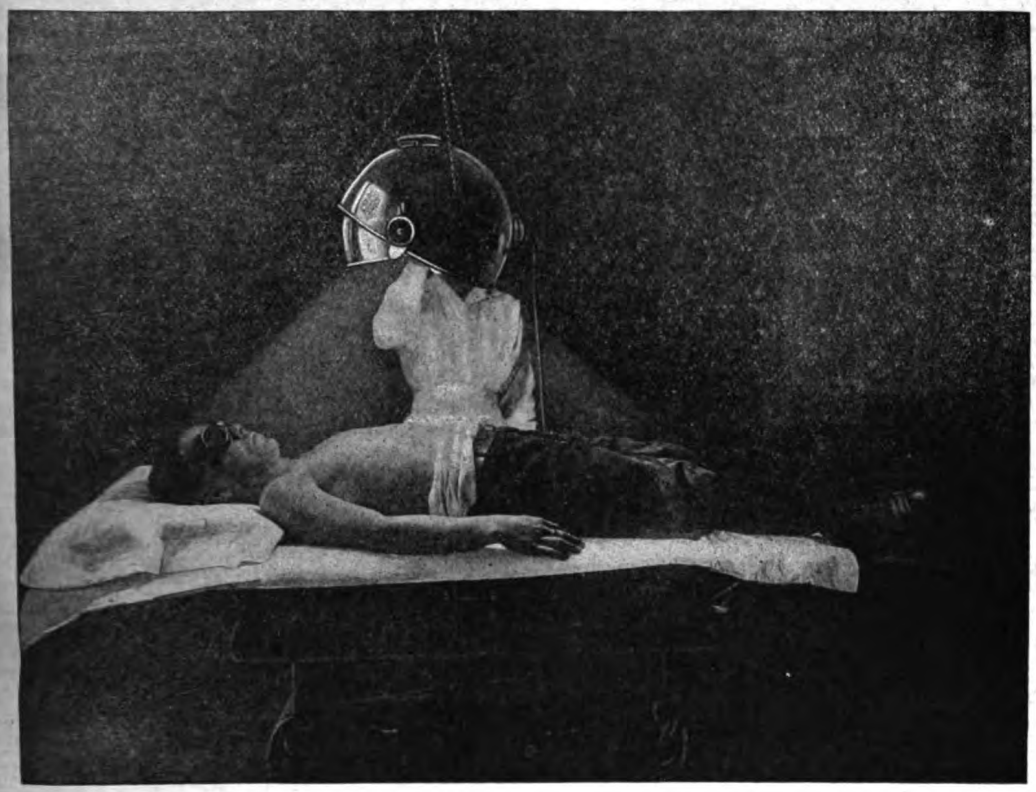
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Medical Melange

MY PLEA

Katherine Edelman

I do not ask for ways and paths of ease,
Or wealth and gain beyond my daily need;
But for a heart filled deep with sweet content
And simple joy of living do I plead.

I do not ask for fame upon my path,
Or that I stand among the honored few;
But let me bend in cheerfulness each day
Unto tasks that I am here to do.

NEW PRICE LIST READY

Word comes from The Abbott Laboratories, Chicago, that their new 1922 Price List is now ready for distribution to the medical profession. This list contains the medicinal chemicals and Council-Passed synthetics, such as Butyn, Acriflavine, Cinchophen, Barbital, Procaine, Chlorazene and Dichloramine-T. Our readers will do well to send for this new list, representing, as it does, the results of years of commendable research and scientific work.

The old saying that "of the making of books there is no end," might be applied with considerable truth to the exploitation of various forms of that useful therapeutic agent, known as the Suppository. Three are many kinds and combinations on the market, all of which are more or less effective and some of which are better than others.

The physician who has tried Micajah's Su tories needs no exploitation to convince him of practical value. These suppositories contain n cotic or habit forming drug. They act gentl thoroughly upon the parts. They control o soothe pain and irritation.

They have been used for many years and the c reports regarding such use point only in the dir of their acknowledged efficiency.

Any physician who has not yet become acqua with Micajah's Suppositories may obtain suff sample for clinical test, together with interestin erature by writing to Micajah & Company, W Pennsylvania.

LITERATURE OF INTRAVENOUS MEDICATION

In a recent issue of a prominent medical jo there appeared a paragraph deploring the scarci literature on the subject of Intravenous Medic The writer was probably prompted by the incr interest manifested in the subject. It will be o terest for every practitioner to know that an att has been made to compile interesting information the subject by the New York Intravenous Laborat producers of Loeser's Intravenous Solutions. "Journal of Intravenous Therapy" has been publis which contains probably the best accumulation clinical and laboratory data pertaining to intrave medication! A copy of this interesting journal be obtained by addressing, Journal of Intrave Therapy, 100 West 21st Street, New York City.

Diphtheria is greatly on the increase. The d rate among children under five is higher than fro berculosis at all ages. The Shick test determi child's susceptibility to diphtheria.

YOUR WORLD

MARGARET E. SANGSTER

The sunlight touches the vivid waves that dance on the autumn sea and, sitting here on the shore, I feel that the world was made for me. Sitting here on the shore alone, I watch the place where the sky kisses the water far away and my heart is lifted high—lifted high as the smiling clouds that gentle as soft songs float through the turquoise sky of the autumn day. * * * Far off a little boat is sailing in from some misty shore and I wonder what it brings, for its hull is bright with the sun's warm light and its sails are glad as wings. Maybe it comes from some foreign place with stones that are uncut fire; maybe it brings from a promised land the jewels of a heart's desire; maybe it carries a weight of hope and a cargo of faith and prayer. * * * I sit alone on the sandy beach and the gay wind plays with my hair. * * *

And as season comes and as season goes, the law is ever the same—the winter time with its whirl of snows, and the summer with skies aflame; the spring with its blossom covered boughs, and its pale, enchanted days, and the autumn time when the dreamy hills are veiled in a purple haze. Beauty is ours through the seasons four and the world is warm in our hands; we stand at a widely opened door that leads to enchanted lands!

The sunlight touches the vivid waves that dance on the autumn sea. And, sitting here on the shore, I feel that the world was made for me. Sitting here on the shore, alone, I watch the place where the sky kisses the water far away, and my heart is lifted high.

For the world is mine—it is all my own; it is mine while my life shall be. I know it now, for the God above has made no mystery of the fact that the earth that stretches far on every side in the sun is a wonder place— and it is mine, and my life is just begun!

You know the feeling—I know you do—you've looked at the Master's face in a mountain gorge, or a rippled lake, or a wind-swept prairie place! You've seen the love in his tender gaze and you've felt the touch of his hand when the day swept up in a rosy haze—or the sunset lay on the land!

JUL 13 1922
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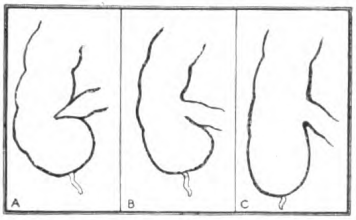
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The Medical Herald

and Electro-Therapist

Incorporating

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St. Louis Clinique, General Practitioner
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The Kansas City Medical Index-Lancet



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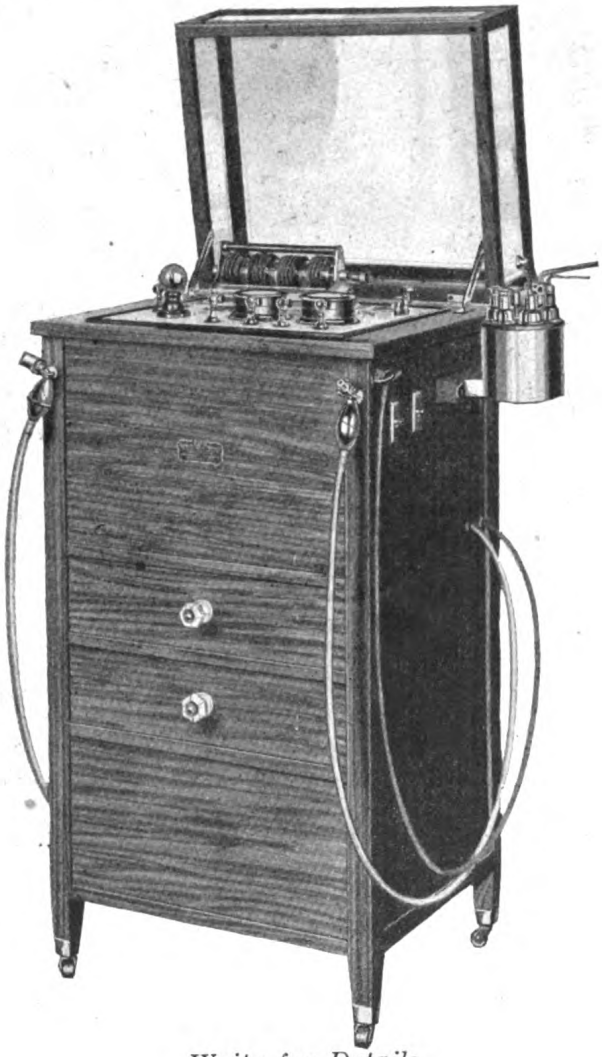
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An Independent Monthly Magazine

XLI JULY, 1922 No. 7

Original Contributions
(EXCLUSIVELY FOR THE MEDICAL HERALD)

SERVATIONS ON THE TREATMENT OF FRACTURES

By FRANCIS R. HOLBROOK, M. D.,
Des Moines, Iowa

UNTIL the past few years probably the most neglected branches of medicine have been Obstetrics and Fractures. The com-on opinion among the laity has been that the erage family doctor is perfectly capable of eating a fracture and attending a woman in nfinement. I am quite sure that the patient the latter case has been rather more fortunate an the former because here at least we have alt with a normal physiologic process and ture has come to our rescue and in many ses has made good our deficiencies. Not so ith the other, at least not to so great an ex-nt. However, the past few years have wit-ssed an awakening on the part of the profes-on with regard to both of these branches with e result that much better work is now being ne along these lines.

It is the purpose of this paper to call to mind rtain developments in fracture treatment hich have placed our care of these very im-rtant cases on an entirely new plane.

I think it is quite generally recognized now at all fractures of importance with the possi-e exception of a Colles should be treated in hospital, at least of the outset of the case. he doctor who fails to avail himself of the ad-ntages of the well equipped hospital which w exists in practically every community and rsists in treating fracture cases in the ill lapted surroundings of the private home ils to give his patient full consideration and ys himself open, if not to a suit for malprac-ce, certainly to well deserved criticism.

Read before the joint session of the Missouri Valley d Southwest Medical Associations, Kansas City, Mo., tober 25-28, 1921.

First and foremost in our aids to treatment in this work stands the X-ray but in the past we have not used this valuable agent to the fullest. We have had plates made of fresh fractures for diagnosis only. Reduction has then been made or attempted, splints applied, and these changed from time to time, eventually discarded and the patient discharged as cured without ever a second recourse to the X-ray to see what the treatment has accomplished. This is not making proper use of the X-ray.

The X-ray bears the same relation to the treatment of a fracture that the stethescope bears to the treatment of a case of cardiac disorder. No physician would use his stethescope to make a diagnosis of organic heart disease and then while carrying out his treatment fail to auscult the heart at frequent intervals to ascertain what effect his treatment was having. So it is with fractures. Having been shown by the X-ray that a fracture exists we cannot go ahead with our treatment of reduction and immobolization without the accurate further information as to what our efforts are accomplishing. We must know if first, reduction has been complete and accurate, and second, if this is being maintained. This information can be supplied only by the X-ray and we should have recourse to it as often as there is any possibility of its need up to the time that union has become firm enough to resist a certain amount of external pressure.

Granted that our treatment of a broken bone thus far has been in accordance with these precepts, what next. Under the old method of treatment we thought that there was nothing more to the treatment than reduction and immobilization of a fracture. We now know that this was but a part of it. For let us ask ourselves what is the object of our treatment. Primarily, to facilitate bone repair and thus to establish restoration of function. Therefore restoration of function is our goal, and in the last analysis this must be the basis of all treatment. All our care and skill must be directed with this one idea in mind at all times otherwise we fail in our accomplishment. For how can we justify ourselves when we discharge a

patient as cured who after weeks in bed in immobolizing apparatus gets up only to find himself with a limb, correct in anatomical outline perhaps but with shriveled muscles, and stiff or ankylosed joints; who for weeks, and in some cases months, is compelled to submit to the wearing of corrective apparatus, to spend part of each day in being massaged, baked and enjoying such other measures as will gradually undo the harm which was acquired while he was undergoing treatment for a broken bone, which treatment failed to take into consideration the most essential thing, viz.: Preservation of function.

Up to rather recently all this disabling aftermath of incorrect fracture treatment was looked upon as an annoying but necessary part of the process of bone repair, much as surgeons of old were wont to regard "laudable pus." We do not have a very high regard for pus these days and the reason is that we have learned that the pus was not at all laudable. Now days when the same phenomena occurs following operation we are much more apt to refer to it as damnable, and this in all propriety.

Now our attitude towards the deformities, ankyloses, and paralyses following fractures must be the same as it is towards infection following operations, that is we must stand up and squarely face the fact that these things have occurred, not by an act of Providence but as a direct result of our treatment. In other words, it is our fault that these sequellae have occurred just as it was the fault of the surgeons of a former day that post-operative wounds ran with pus. They did not know that it was their fault until Lister and Pasteur showed them. Then the fault was remedied.

The same problem confronts us today. We have been shown positively and conclusively that the result of our fracture treatment is bad in some respects and we have had it pointed out to us why this is so. The remedy would therefore, seem simple of application.

When we undertake to treat a patient for a broken bone two things must be sought: First, to restore the bone to the condition it was in before the injury or to do this as nearly as our best efforts and surrounding circumstances will permit, and the second to do this as quickly as possible. Unfortunately our treatment of any of the long bones which may be fractured is complicated by the fact that a number of normal structures such as other bones, joints, muscles and tendons must also be included in the treatment. From this fact arises most of the difficulty which we have had in the past in the way of disagreeable and faulty after results. While the treatment was correct as far as the injured bone was concerned, it was most faulty when considered from the standpoint of the innocent bystanders, so to speak, viz.: Th joints, muscles, etc., etc. They needed no tre ment but were included just the same, a made to suffer because of an unfortunate mi hap to one of their number.

Now it is not possible to eliminate from th treatment all of the structures other than th injured bone. Some of them must participa in the treatment but we can so modify th treatment that the injured bone receives the care it needs and at the same time the a jacent structures are so treated that they a not put entirely out of commission and by th manoeuver their function is spared. Here lies the essence of the newer conception of th management of fractures.

Let us take a concrete instance, a fractu say of the Femur in its middle third. Fo merly the accepted method of treatment f this condition was either a plaster cast fro the pelvis to the toes, or a long Liston or Ha ilton side splint with Buck's extension. Th was continued for a period of six weeks ge erally, sometimes longer and when the cast splints were removed we frequently encou tered a wasted limb, a knee joint more or le stiff which required some time to limber up a not infrequently a condition of foot drop some extent or other. Granting that the bo was in good alignment and that union was fir here was a patient who required considerab treatment in the way of mobilizing joint building up atrophied muscles and perhaps tr ing to restore paralysed anterior tibial muscle All this could have been prevented or greatl minimized by giving attention to these thing before they happened.

It has been said by an authority that the be way to preserve function is not to lose it and believe there can be no gainsaying this. Tha being the case it behooves us to so treat thes cases that muscle tone and joint function a not allowed to become impaired while the in jured bone is undergoing repair. This is n difficult of accomplishment if we adopt a ra tional method of treatment. Under the ol method of absolute fixation these sequell were impossible of avoidance but we now kno the great advantages of the traction and su pension principle.

It can be laid down as axiomatic that if tra tion be applied to a broken bone in the line the proximal fragment when the bone is at re no harmful angulation at the site of fractu will occur. By the position of rest we mea that position occupied by the bone when n external forces are acting on it other than thos produced by the muscles to the bone itself. very inconsiderable amount of external force i sufficient to materially influence this positio Given a slight external restraining force and

noderate amount of motion can be made in he joints contiguous to the fragments without ffecting the position of the fragments. When raction is made on the bone the force of the tretched muscles is usually sufficient to main-ain the fragments in their proper position, nd with traction properly directed, motion can e made in the contiguous joints without alter-ng the position of the fragments. Traction vercomes the tendency to overlapping and onsequently to shortening. As long as trac-ion is made in the proper direction, any an-gulation which may occur at the site of frac-ure in the early days of the treatment is harmless and the beginning union in the frag-ments can usually be relied upon to supply suf-ficient restraining force to maintain the rela-tive position of the fragments. As to sus-pension: We have seen that if traction be not continued in the line of the axis of the proximal fragment when the parts are at rest, angulation at the site of fracture will oc-cur. Now this cannot be overcome by fixa-tion unless the fixation be complete, and this means including the adjacent joints in the fixa-tion apparatus. Fixation on one side only, in-creases the danger, but if we allow freedom of play on both sides so that the parts of one side are free to take part in the movements of the other side then the danger is completely elimi-nated. Traction should be made on the distal fragment at the fartherest point possible from the seat of fracture. Suspension not only pro-vides the above advantages but it adds tremen-dously to the comfort of the patient enabling him to change his position in bed without as-sistance and without the danger of disturbing the injured bone. Under this regime the re-sults in this work have been better than we have had before. Especially is this true of in-fected compound fractures because of the much longer period of time that the patient is forced to remain in bed in immobilization apparatus. In these latter cases there goes hand in hand with the treatment of the injured bone the treatment of the infection of the soft tissues. This too has been greatly changed, not to say revolutionized in the past few years, so that the hospitalization of these cases has been greatly reduced thus affecting a marked saving of time and consequently of money to the pa-tient and to the community.

I stated at the outset of this article that all fractures of importance should be treated in a hospital, at least the treatment should be ini-tiated in a hospital and continued there until such time as the patient can be transferred to his home with safety. This statement applies mostly to fractures of the upper extremity. As is well known to you all fractures of the hu-merus, and especially those of the upper hu-meral type are of serious importance, partly because of the difficulty of a satisfactory reduc-tion but mainly because of the difficulty in maintaining this. I doubt seriously if this lat-latter type of fracture can be successfully treated without putting the patient to bed and maintaining the arm in full abduction and us-ing extension. Quite generally one week of this suffices, at the end of which time the pa-tient can be allowed up with the arm on an abduction splint. When the splint is removed the weight of the arm causes it to drop to the side of the body and the shoulder muscles, which have been kept relaxed, are able to re-sume their function so that in a very few days the patient is able to carry out shoulder move-ments through a normal range of motion. This result has been aided by daily passive move-ments of the shoulder with the splint off after the first ten days.

Our increasing knowledge of the proper method of dealing with fractures has shown it-self in the earlier abandonment of splints in the treatment of certain fractures. This is prob-ably best seen in the Colles. In the less severe types of this injury, the splints which are only a few inches long and of the lightest material, can usually be dispensed with in about twelve days and the patient can generally be returned to his employment in twenty or twenty-one days. Here also we have a condition where loss of function results very quickly unless proper measures are instituted to prevent it. Owing to the proximity of the injury to the wrist joint and also to the large number of tendons which traverse the fracture area, adhesions are greatly to be guarded against. Early motion must be resorted to and in the average case this means active and passive motion of the fingers and wrist after the first 48 hours. The anterior splint can be discarded at the end of a week and the posterior one can be dispensed with about the twelfth day. It is usually possible by this date to see the patient in possession of a range of motion which approximates normal.

A final word concerning immobilization methods. The quite general introduction of open splints has caused a greatly lessened use of the one-time favorite—Plaster of Paris. There are very good reasons for this. The main one is that with the abandonment of the old principle of absolute fixation immobiliza-tion and the substitution of the preservation of function as the basic idea in treatment, natur-ally plaster was bound to find a diminished field of usefulness. The application of a plas-ter cast calls for an ability rather above that possessed by the average general practitioner It is far from being a simple matter and the frequent trouble, not to mention the occasional disaster resulting from a badly applied cast, is

sufficient evidence of the truth of this statement. This is not to say that plaster should never be used but that it should be employed with judgment.

Certain it is that newer methods have come into use which for the general treatment of fractures have proven themselves to be productive of much better results than were obtained by this older and less accurate method.

THE PRESERVATION OF FUNCTION IN JOINTS AFTER FRACTURES

By JOHN PRENTISS LORD, M. D., F. A.C. S.,
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THAT an ounce of prevention is worth a pound of cure, is an accepted bit of wisdom, as old as the experience of man. The prevention of ankylosis following fractures, therefore, will embody a consideration of those factors which contribute towards the delayed, impaired, or arrested function of joints, and the means by which stiff joints after fractures may be avoided, or their degree and frequency lessened.

Some surgeons have maintained that normal joints will bear immobilization for an indefinite time without becoming ankylosed. This view seems to have grown out of the experience of orthopaedic surgeons who have observed the benign influence of the prolonged fixation of normal joints in casts or braces used in the treatment of paralysis and other orthopaedic conditions. Probably all general surgeons will hold a different view, for the reason that they have seen cases of decided stiffening, and even permanent ankylosis, follow relatively short periods of immobilization, incident to the treatment of fractures, somewhat remote from the joints. So striking has been this observation that there would seem to be an individual tendency to ankylosis in some patients. It is probable that infiltration of the soft parts with blood and serum, favor connective tissue formation which thickens and condenses tissues, and produces adhesions between joint surfaces, muscles, tendons and other structures, which, if allowed to remain untreated for a conderable time, result in permanent stiffness and immobility.

Imperfect reductions and attempts to have splints, pads, pressure, and force, hold fragments in position is, in the writer's observation, responsible for the major portion of stiff joints, adherent tendons and muscle bound limbs. These should be avoided by more accurate reductions, by manipulation or operation, lessened dependence upon splints, and early physio-therapy in its various forms.

Joint fractures have more or less blood within the cavity of the joint. The traumatism within the capsule causes an increase in the synovial secretion, but this is probably desirable in that it dilutes the blood, and renders it less fibrinous, thus making it less likely to favor adhesive formations. Blood in large amounts, however, is inimical to restoration of function after joint fractures.

It has, therefore, been my practice to aspirate, by use of a trochar of goodly size, and express by manual compression, the blood clots from joints thus distended with blood, or to incise the joints if necessary. A joint may be distended with blood, or synovia, to a degree rendering full flexion impossible.

Bone fragments which block motion should be reduced at once and held by dressing the limb in the position necessary to insure a full range of motion in flexion, or extension, as the case demands. In fractures of the condyles for instance, with backward displacement, after complete reduction and the forearm in acute flexion upon the arm, and the coronoid cavity filled with the coronoid process, there will be less trouble about full flexion function. But to safeguard against a limited extension, very early resort to extension must be had, indeed within a few days. Violence in these secondary movements must be avoided. Gentle voluntary movements are preferable when permissable; but when this cannot be performed on account of the extent of the disability, then very gentle passive movements should be made. Delay is apt to render these movements more difficult. At the earliest, measures to limit swelling and hasten resolution should be employed. Hot fomentations or other applications of heat favor resolution in the soft parts. Massage is especially beneficial from a very early period. Within the first week is not too soon, and usually light massage from the first, or at least within three days, is desirable. It should not be delayed beyond the first week. In fact as soon as it become prudent to partially remove the primary dressing, measures should be instituted to improve the circulation, promote absorption and restore joint function. It is a common fault to treat for restoration of bone damage only, and to forget restoration of physiological function of the involved or adjacent joint. These suggestions should be especially observed in Colles's fractures. Again may I say in paraphrase, that it is the writer's experience and observation, that much of the ankylosis of joints and impaired function in limbs, is produced by the improper application of splints, too tight bandaging, and improper and imperfect initial reduction of the

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fractures. Imperfect reduction lead to attempts to crowd the fragments into position by force exerted through the dressings upon the parts. The most frequent example of this is in fracture of the wrist, where the soft parts are prone to damage from any undue or prolonged pressure. Most wrist fractures are over-splinted, and too greatly compressed. Adequate allowance for swelling not having been made. When well reduced, only very slight dressings are necessary. Ether anaesthesia or local analgesia by nerve block, is usually essential to proper reductions and applications of dressings. The X-ray should verify the accuracy of reductions and be repeated if necessary. The slight dressings required in wrist fractures should be removed and the parts manipulated daily after three days or a week. The result is normal function in five or six weeks. There should be full restoration of strength after two months.

It is frequently observed in late referred cases that prolonged fixation incident to delayed or non-union is a frequent cause of stiff joints. The retarded union should become of secondary concern when ankylosis is liable to result from further casting or splinting together with the too great prolongation of the period of non-use. A case in point was that of a patient who came to the writer for an operation for fibrous union in a vicious position, in the middle of the right femur, after five months. The knee was already so stiff that attempts by the attending surgeon to break up adhesions under aesthesia had been resorted to, one week previously. The left foot had been lost in a railroad crush at the time the thigh was fractured. A reamputation of this leg stump was required to secure a good result. It was advised that this amputation be done first, and that in the meantime diligent treatment be directed to the restoration of function in the knee, rather than to deal immediately with the fractured thigh. The treatment of the stiff knee was by heat, and voluntary and passive, forced flexion daily, gradually increased to the point of tolerance. In six weeks, right angle flexion had been secured. It was then thought desirable to do the open operation for the non-union of the femur. The splice, mortice method was used, there being two and one-half inches of shortening. The fragments were held in position by means of long diamond point drills tempered at their points only, and introduced by a carpenter's geared brace, and the drills placed staggard and at tangents as a carpenter would direct his nails in splicing a board. These drills were removed in ten days and no ill results followed their use—thus objectionable wires, screws, and bands, or other more permanent foreign material, avoided. The management of this knee had been quite overlooked in an over-zeal to get union in the femur. Ankylosis of this knee had been well advanced after five month's immobilization, and to have continued it further by operating the non-union at once, and immobilizing this knee that had been forcibly manipulated under an anesthetic, but five days before, would have made a stiff knee a certainty. To guard fully against this likelihood of recurrence of ankylosis during the further immobilization of the fractured femur, at the two weeks period, a Turner (exhibit) knee splint was incorporated in the plaster hip spica, which was renewed at that time. This permitted flexion at the knee to be performed daily without disturbing the fracture. The man was sent home wearing this apparatus and the movements were continued at his home. The end result was a solid femur, and a knee with nearly perfect function. Had the man had a stiff knee, with an artificial limb on the other side, his disability would have been definitely greater.

Another case was that of a man who had so slight a union in his fractured femur that it had refractured after five months. It had then been plated. He was wearing his cast eight months afterwards when first seen by me, the knee having been incased in plaster for all of this period. Union was still uncertain and the plate off at one end. I removed the plate and found the knee to be stiff and it is likely to remain so because months of treatment has resulted in securing less than five degrees of motion, and there is apparently no prospect of increasing it. The union in the femur was still fibrous when last observed.

Captain Alexander of the Royal Army Medical Corps, British Medical Journal, September 13, 1919, calls attention to another class of "stiff knee" which follows compound fracture of the shaft of the femur in which the limitation of flexion is not due to articular so much as to periarticular and muscular changes. He says: "This is the type which yields very satisfactory results with careful treatment. Stiff knee after compound fracture of the femur may be due to articular, periarticular, or muscular causes. It is chiefly the changes in the quadriceps which cause stiffness."

"In a typical example a markedly wasted and scapnoid quadriceps exists. On passive flexion of the knee, considerable pain is generally caused by periarticular adhesions, but if these are absent, a very much shortened quadriceps prevents flexion for more than a few degrees. This means that the normal function of extensibility and contractibility are absent; that it parts' dense scare has replaced the muscle tissue; and that there are scars of healed sinuses reaching down to bone. This state of affairs

has resulted from the original injury, the peristence of specis and prolonged disuse."

"Histologically the picture varies with the position from which the sections are taken. Those near the septic focus show absolute replacement of muscular tissue by scar, while other sections show decreasing amount of scar. Coagulated fibrin binds down the muscle fibres. (I am still quoting Captain Alexander).

"Throughout the muscle there is considerable shortening of individual muscle fibres, which, in addition to showing marked contraction in size, are in a state of partial degeneration, and as a result of prolonged disuse, have "forgotten" how to function. This condition is that of typical disuse-atrophy."

"There is a certain degree of regeneration going on as a result of proliferation of sacrolemma nuclei, and muscle cell budding and splitting. The survival of the young muscle cells thus formed depends upon the degree of encouragement they receive to function; otherwise they run the risk of destruction before they reach maturity, either by disuse-atrophy or by condensation of the recently formed scar tissue. Their failure to survive only increases the amount of fibrous tissue formation."

"During the treatment of compound fracture of the femur there are all the necessary conditions for the formation of fibrous tissue in muscle, namely, trauma, sepsis, and prolonged disuse. In the neighborhood of the fracture and about each sinus, the muscle is riveted to the bone by dense scar. With a normal point such a shortened muscle forms a considerable obstacle to flexion of the knee. Similar changes are found about the tendon sheaths and in tendons and ligaments around the knee joint due to the same causes."

He tells us: "Treatment should be first prophylactic, by chemical sterilization, removal of all sequestra, and early secondary closure of wound when possible. Secondly, any scarring which binds the muscle to the bone and all intra-muscular and periarticular adhesions must be broken down. Thirdly, the normal functions of contractibility and extensibility must be restored and growth of young muscle cells encouraged."

"As soon as the condition of the wounds permit, the quadriceps should be treated by graduated contractions by means of the Bristow faradic coil. This loosens intramuscular and pediarticular adhesions and restores tone to the muscle, which begins to increase in size."

Specialists in deformities are in a position to see the unfortunate results and failures of others, and are wont to be pessimistic and hence pedantic. But we all learn more from our failures than from our successes. I, therefore, can justify myself in sounding these "dont's" from my own experience. We must not lose sight of the necessity of preserving the function of joints in fractures. Otherwise we have failed in our full duty. Though this teaching and practice was well known before the war, it has been enormously emphasized by that experience. This paper represents a further attempt to force home this feature of the treatment of fractures, upon the attention of our fellows.

Cases of so-called foot drop with equinus deformity are all too common and usually reflect upon the management which the case has had. This deformity and disability develops so insiduously that we have all experienced it in our practice oftentimes to our discredit. A recent case will illustrate how necessary it is to anticipate the outcome of a train of conditions, and to be able to do this it is necessary to think orthopaedically, as it were.

A young man of fifteen came to the writer recently who two years previously had had his right leg injured by the fall of a horse upon it. No bones were broken. A hematoma in the calf had suppurated and required an incision its full length, including the popliteal space; prolonged suppuration and slow healing had left one and one-half inches of broad keloid scar. A cast had produced a pressure sore over the head of the fifth metatarsal with resulting necrosis and a dorsi flexed retracted little toe. Contraction of all at the calf muscles and adhesion of their sheathes had drawn the heel up and had left the posterior capsule of the ankle joint so short that it required division after lengthening of the Achilles by the splice method, and tenatomy of the posterior tibial, flexor hallucis, and the peroneii tendons. The whole foot was stiff and ankylosed from the prolonged swelling, edema and nearly two years non-use. The toes were all dorsi-flexed, contracted and the whole foot absolutely stiff. There were callosities under the metatarsal heads. All the toe extensors required division and the ligaments were ruptured by forcible manipulations. An extraordinary amount of force was required to over-correct this foot which was retained in the dorsi-flexed position by plaster. The excision of the scar from the popliteal space to the heel united per primam. The foot could be flexed well beyond a right angle at the first dressing and the toes could all be plantar flexed. These corrections will be maintained and the various forms of physiotherapy will be employed to restore the circulation, absorb adhesions and restore function. Use will complete the result. All of these conditions could have been anticipated, and the deformities and disabilities avoided, and the extensive and difficult operation would have been rendered unnecessary. We

must consider our treatment of cases in terms of function. We must give our injured more of our time and not leave too much to nature, whose normal functions are usually handicapped by our dressings.

Adherent patella is a frequent source of stiffness in the knee. Undue pressure over the patella by plaster or splint for a few weeks will produce a stiff knee—hence it is a good practice to cut out casts in front of the knee, and to make frequent manipulations of the patella to insure against its becoming fixed.

Fractures of the patella are not as common as are injuries to other important joints, but in the severer forms of this injury the danger to the joint function is imminent and their care and successful treatment necessitates a degree of surgical finesse possessed by but few, even among the most skilled. A discussion of patellar fractures will not be undertaken in this paper, but a few observations relative to the care and management of this injury to preserve knee joint function will be made. It has been my custom to operate these cases at once if privileged to do so. In cases seen after one or two days, it has been my custom to wait ten days rather than to operate during reaction—thus following the dictum of the late John B. Murphy.

After the patella has been sutured a day or two the patient is instructed to begin contracting the quadriceps femoris, and to practice this two or three times daily to conserve and preserve its function. Early manipulation of the patella from side to side, and the slight flexion of the leg would best precede the more important steps toward a freer movement which may be carried to the point of tolerance, even to the discomfiture of the patient, in a firm determination to get a movable joint. Physio-therapy in its various forms must be a daily routine, and carried on with a persistence and an enthusiasm which will ultimately spell success.

Of course, we realize that we are reciting generalities in treatment. Hard and fast rules cannot be laid down. All of these proceedings must be tempered with the necessary judgment. It is the writer's observation that the most of bad results have resulted from too long periods of inactivity, delay before treatment is begun, and a lack of due appreciation of the necessities of the case in beginning early, the generally accepted means for preservation of the function of this or other important joints. The greatest single factor is a cast too long worn. A lock knee brace is one of our means of enabling us to dispose of the cast early and still allow our patient to get about with comfort and security, and at the same time perfect facility to practice motion during the convalescent stage. This principle should be frequently used also in elbow cases.

Your essayist is presenting nothing new in any of his recommendations, he is but trying to emphasize the necessity for early recognition of obvious requirements. Surgeons must possess an orthopaedic mind, and an orthopaedic conscience that we may better foresee and act upon the requirements in the treatment of fractures if we are to secure a maximum of function in the adjacent or involved joints.

Lest the methods of procedure in the practical application of the principles of massage, manipulation, voluntary and passive motion, be misunderstood, let me explain that these various measures should be inaugurated with the utmost gentleness and refinement, proceeding with due caution, common sense and a proper display of judgment in each individual case. Nothing like "pump handle" methods of manipulating limbs, or undue force applied to a painful degree is permissible.

THE CAUSE AND PREVENTION OF JOINT STIFFNESS AFTER FRACTURES

By DR. H. WINNETT ORR, F. A. C. S.,
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DURING the war surgeons were required to do their work in an atmosphere quite different from that to which they had become accustomed. Surgical methods, technique, manners and customs, personal habits and even surgical results were all in the open. Surgeons and their methods were compared not only by each other, but by Colonels, Majors, Captains and Sergeants and Privates. Even nurses, trained for years to take orders from an individual surgeon and carry them out, "with their eyes shut," so to speak, were given the unusual experience of having the orders of one surgeon changed by the orders of another of different rank.

This was all very new and difficult. It was brought about by the difference in rank in medical officers, but chiefly by having certain best general surgical methods recognized as standard and superior to others. In other words, surgical methods were put first and the surgeon himself came second.

Of course, this influence has not yet carried over into the practice of civilian surgery to any great extent. However, the effect of this experience has been felt and its influence will be felt more and more as time goes on.

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Perhaps you are asking, "What has this to do with prevention of joint stiffness in fractures?" I am coming to that.

There has always been a horror among surgeons of stiff joints. It has not been so many years since the opening of any of the large joints was looked upon as an almost certain preliminary to stiffness. Now we know that if the joint is opened aseptically stiffness is really difficult to secure. Out of several hundred operations designed to arthrodese the ankle or knee, I have several that have failed to become stiff.

There is one thing certain, however, and that is that a joint in which the articular surface is destroyed by infection becomes ankylosed. This infection need not be an active suppurating infection. A slowly developing infection, following an injury with evidence of damage to the joint and joint surfaces will cause ankylosis. Such an arthritis is particularly apt to follow traumatism; the sort of traumatism that goes with fractures near joints is quite apt to precipitate an arthritis and a stiffness of the joint nearby.

This is particularly apt to be true, of course, if the patient is carrying nose, throat, sinus, pulmonary or abdominal infection. These are the factors that make joint stiffness, with or without fractures. With fractures or with traumatism and continued mechanical irritation, and with infection as a factor, stiffness and ankylosis are very apt to occur.

Now before drawing our conclusions, let us shift our method of approach to the subject to another point of view for a few moments.

The war experience emphasized the importance of anatomical replacement and immobilization in the treatment of fractures. In the femur, these were life-saving, as well as essential to functional results. Moreover, we learned that usual splinting and traction methods were sadly deficient for both of these purposes. We developed standard methods and standard splints. An immediate replacement of broken bones and soft parts to anatomical relationship was insisted upon, and splints were employed which came nearer to our ideals of immobilization than has ever been true before.

Liston splints, Hodgen splints, sand-bags and traction were, to a large extent, discarded. The result was that we got not only better results for the fracture itself, but better function for the neighboring joints.

From both lines of thought presented above, therefore, and from the experience of my cases, I have arrived at a conclusion which differs from that held by many surgeons. And my conclusions have been arrived at in spite of the previous belief that prolonged immobilization of fracture is to be avoided because it causes atrophy and stiffness. My present conclusion is almost the direct opposite of this.

I contend that it is not immobilization that causes stiffness of joints near fractures, but failure to immobilize; not splinting that causes joints to be stiff in a fractured limb, but poor splinting. It is not keeping the joint quiet that impairs its function afterwards, but putting on a splint or a traction device that permits, instead of preventing, constant movement and irritation. It is this poor splinting or poor cast that permits the development of arthritis as a result of the injury at the time of the fracture and repeated traumatisms afterwards.

Immediate anatomical replacement of the fractured parts adjacent to the fracture, and the best immobilization we are able to secure and maintain, will diminish and not increase the joint stiffness in these cases.

In other words, it is traumatism, infection, irritation and joint damage that cause joint stiffness. It is not the immobilization. What joints need, especially in the vicinity of compound fractures, is correct position, protection and rest, in order that the injury may be remedied as rapidly as possible and in order that the joints may heal without further injury, infection, arthritis, erosion, fibrosis and ankylosis. And exactly the same principle applies in considering the danger of pathology, adhesion and limitation of motion in the soft parts in the vicinity.

DISCUSSION

(Papers by Drs. Holbrook, Lord and Orr)

Dr. C. B. Francisco, Kansas City.—You cannot treat fracture of the femur with any particular method; however, the general principles are the same. Some men use Lane plates on fresh fractures and get good results; others get poor results. Some use traction, others cannot. Some can use Thomas' splint, others cannot. The cast treatment alone is not sufficient; you must use extension; otherwise, the pull of the muscles is so great that you are courting disaster in obtaining deformity. Therefore, extension is very important.

As to immobilization, that varies with the injury. Sir Robert Jones tells us that in injuries into the joint we must use firm and complete immobilization for a long time, and not to force motion; on the other hand, there are men who get better results by movement. In some cases this movement displaces fragments, produces irritation, serum exudate, and unfavorable results. However, to keep the muscles functionating is important. Continue fixation for a definite time until muscle-spasm is gone, then remove the fixation, and begin with functionating.

We have had no cases of non-union of femur fractures in the ex soldiers, which speaks well for the extension treatment.

Dr. Robert Schauffler, Kansas City.—There are two factors which enter into the causes of stiffness and disability in the joints and tendons of a fractured limb; the one is mechanical, and the other probably infectious. Everybody has probably seen a case or

wo of ischemic paralysis from applications of splints ad a gelatinous edema. The limb is stiff and cold. his occurs in a lesser degree in many cases too ghtly splinted. There is a certain amount of vaso-otor paralysis, the vaso-motor tone is gone. Just ne reverse turn around the forearm may cause con-triction, not enough to produce gangrene, but edema ad loss of function.

The second group of cases are infectious. The limb traumatized, the circulation is decreased, and germs re easily carried there. In a young person with a olles fracture, and who has infected tonsils, and the rist remains stiff, attend to the infected condition, stitute early movement. In an old lady with Colles racture, and with Hebridon's nodes on her fingers, ne trauma makes matters much worse, and a very tiff and useless hand results. With intensive treat-ent for 4 or 5 months 75 per cent improve. These onditions of rheumatism or gout warn you that in any racture in which it is not suicidal to give early mo-ility you must almost forget the fracture. I do not elieve that immobilization alone makes the stiff joint. f it is properly done, and the health is good, no stiff-ess results. The plaster cast must be carefully ap-lied, smooth and snug, but not tight, and properly added, but not too much. Different joints require lifferent management. Dr. Osgood was not able to eneralize as to rules; he mentioned practically every racture in the body, and had about 20 subheads to ay what was the best treatment of fractures.

Almost all the elbows need be moved early. Frac-ure of both bones of forearm should be moved very ate. In many cases it would be an advantage to have ome kind of jointed splint so that you can move the arts a little at a time; and unless there is some me-hanical contra-indication you should move the adja-ent joints. The skeleton traction with calipers on the emur or heel, is the best compromise between the ex-pectant treatment in splints and the open operative treatment,

In Pott's fracture, the main thing is proper reduc-ion. I rarely leave the cast on six weeks. Often I cut off the front half very early, and leave the back half on longer.

Dr. P. R. Werndorff, Wellington.—I believe it is only a question as to who does the work. I have treated many fractures, both accidental, and surgical, as in osteoclasis (closed operation) and have had no complications. Modern orthopedic surgery is so well developed that we can reduce the severest fractures of extremeties to normal bony and functional condition. Reduction must be done immediately after the injury; the fate of the patient depends very much on this. Our work in tendon transplantation shows that a mus-cle must be in the normal psysiologic situation. If it is dislocated or shortened, it means injury to muscle tissue with degeneration and atrophy. You must re-place the fragments anatomically immediately after injury; every half hour makes a great difference. Nar-cosis, and sometimes tenotomy to overcome shorten-ing are necessary, both in upper and lower extreme-ties. There is not only dislocation in length, but also lateral, as well as rotation of fragment. The second point is fixation. In Lorenz's clinic the plaster cast is exactly applied, and you can guarantee reduction. We do not believe that a fixation of a normal joint produces an ankylosis later. The plaster is left on as long as necessary. In the radial bone, we leave it on only 8 days; in the lower extremity after 4 weeks the cast is removed and we never find stiffness.

In joint fractures the periosteum is injured. Early passive motion should be done gently. In the elbow joint, even very severe injuries, plaster in extension is applied during narcosis, removed two days later, and the patient required to use his own muscular action to flex the arm slightly. Fix in the new position for two days and repeat, so that all changes in position are active changes. We thus get complete normal function in the elbow, even where the trochlea was split.

Dr. Ridell, Salina.—You cannot lay down any rules for treating fractures; there are many different kinds. Why do we use immobilization? We have five fac-tors: 1. Adhesions of the articular surfaces. 2. Me-chanical formation of bone callus in the joint. 3. Thick-ening of the capsule, which limits motion of joint. 4. Tendon adhesions. 5. Impaired function and con-tractility of muscles.

I object to the term "treatment" of fractures. It is really "management." If it were only bone tissue, it would be easy, but nearly all the soft tissues are dam-aged. Have the patient immobilize his own joint, so that he will not hurt himself. Let him have a little action. The soft parts play the most important part.

Dr. H. E. Pearse, Kansas City.—We must approach fractures with a northopedic mind. Let us not be stubborn, but listen to others. Traction is the great point in fractures of extremities. It may be done in various ways—the older Buck's extension or the newer method of skeleton traction or ice-tongs; but we must have good traction, and the case must be carefully watched from day to day to keep the fragments in ap-position. I believe in the Thomas splint. With it we get traction without attaching itself to the bed. It gives the patient freedom. It is the best method of extension.

Dr. Holbrook (Closing)—In the early part of the war these fractures were treated in various ways and the results were horrible. Sir Robert Jones then stated that less than 2 per cent of fractured femurs were fit to return to duty. Later in 1916 and 1917, the same authority, Sir Robert Jones, declared that 80 per cent were successful. Naturally with such prog-ress my apparent optimism is well founded. The Thomas splint was mainly instrumental in producing this great improvement. The Belgian surgeons in-sisted on active mobility right from the start mostly the knees. It was very painful, but it was insisted upon, and produced good results.

Dr. Lord (Closing)—It has been my custom for 30 years to teach students that fractures of the femur were of major importance, and like laparotomies, re-quired special training. Inexperience is the cause of most bad results. The profession must understand that these cases are of major importance, and that an appreciation of this will do as much as the X-ray has done in special hands.

Dr. Orr (Closing)—I would especially urge every surgeon here to read of the work of Sir Robert Jones in the British Army. If that influence could be car-ried over into civilian practice, we could get better results. The statement by Dr. Francisco that indi-vidual methods gave good results may lead us astray, as proved by the many rejections in the service owing to fractures. No one ever heard of a child, after osteotomy, having a stiff ankle. It is the immediate replacement, immediate immobolization, that get re-sults.

Dr. Schauffler said that too tight, too prolonged bandage or splint caused stiffness. Why does he say "prolonged?" The tightness alone will do it, even in 48 hours. Individual methods, or pleas for same, are rather for the convenience of the surgeon—not for the patient. I object to that. If a standard method could be inaugurated and every surgeon compelled to adopted it, it would be better for the patients.

ELECTRO-COAGULATION AND ITS USES

T. HOWARD PLANK, M. D., Chicago, Illinois.

ELECTRO-COAGULATION is the term applied to the modern method of destroying tissue and of controlling hemorrhage by the electric current. It utilizes the well-established principle that the resistance offered by tissue or matter to the passage of an electric current produces heat, and if this current is strong enough it will produce sufficient heat to destroy living tissue.

We find in searching ancient history that our ancestors used external heat in the form of hot metals to control hemorrhage. About forty years ago John Byrne of New York recommended and used successfully red hot irons in the destruction of malignancies.

Coming down to the twentieth century, and with it the electric current, we find that Dr. J. F. Percy of Galesburg, Illinois, has perfected the use of electrically heated irons and is using them for the destruction and removal of malignancies which has been a great boon to many thus afflicted.

The newest thing on electro-coagulation in which high frequency currents are used is the electric scalpel manufactured by the High Tension and Equipment Company of New York. This machine delivers a frequency and amperage so high and the voltage so low that the tissues offer no resistance to the passage of an instrument thru them. It is impossible at this ime to give a definite technique, but it gives promise of greater utility than anything known up to date where cutting is necessary and where rapid bloodless work is required.

We find this method of removing cancerous tissue especially good in carcinoma of the breast, having performed in twenty-eight minutes a complete breast amputation with axillary and sub-clavicular dissection with very little loss of blood and the ligation of three vessels. But it is easy to understand the difficulty encountered when you try to use red hot irons in the cavities for it is almost impossible to limit and control the heat to the spot for which it is intended and the result is that the surrounding healthy tissues are destroyed, causing added suffering to the patient.

We find Doyen of Paris an early user of the high-frequency currents for the destruction of tissue and for the control of hemorrhage. He used a large flat applicator which required large amperage and considerable time. There are still many followers of this method, but to Dr. W. L. Clark of Philadelphia belongs the honor of perfecting a more modern technique. Dr. Clark u needles instead of the plaques used by Doy thus making it possible to work in very sm otherwise inaccessible areas, the current c sumption being sufficient to destroy the volved tissue. His work has been mainly o and integumental.

Using this knowledge as a foundation have tried to go a step farther and perfec technique for all cavities (oral, vaginal, a rectal) as well as integumental. This has ta a great amount of effort and thought as have had to develop an entirely new equipm of specula and retractors using non-conduct such as glass, wood, and vulcanized rubber their manufacture.

The high-frequency current is the term plied to an alternating current of extrem rapid alternations numbering a million or m per second. There are several types of t current. We may have one of low voltage high amperage as the D'Arsonval current o high voltage and low amperage as with Tesla current, both of which are bi-polar c rents. The same machine by the addition o resonator will give the Oudin current, a uni lar current of extreme value in light surf work but of no value in cavity work for reason that its destructive action is but sup ficial.

Fulguration was the term used a decade a to describe the destructive action of electrici This term being used a great deal by uro gists to describe cautery work in the bladd and urethra. Credit is due the urologist for h aid in the development of this method of tre ment. Having developed instruments, cyst scopes and insulated electrodes whereby ca terization of papillomas and small malign areas in the bladder and urethra are easily p formed.

Fulguration is scarcely ever used for we n have two distinct actions of the high frequen currents, one the coagulation to the point destruction of the albuminoid portion of t tissues and known as electro-coagulation which we use the D'Arsonval current, the oth we call desiccation as the tissues are eith dried or carbonized increasing with the amou of current and time used. For the latter use the Oudin current which as has been sa is very useful in surface work. So you see have no place for the word fulguration, whic if you will look in your dictionaries you wi find means lighting stroke or swiftly dartin pain, a term aptly applied by the early users high frequency currents, who received the te rific lightning-like sting of these currents b means absolutely nothing regarding their d structive action, so rightly it is being forgott as rapidly as possible.

Read before the Western Electrotherapeutic Association, Kansas City, April 17, 1922.

n starting this work it was found necessary ıse a current which was powerful enough to troy cancerous tissue and still capable of in- ation so as to protect the patient as well as operator against shocks and burns. The sla, being a high voltage and low amperage rent and impossible to insulate, was aban- ıed to those who cared to use it we having ned our fingers to our own satisfaction. If D'Arsonval current is taken from a prop- r constructed high frequency machine wires y lay across each other or come in contact th the patient or operator yet no shock oc- hence we find it to be the most satisfactory most cases where heavy, deep, destruction required as is the case in hemorrhages and ge cancerous masses.

The Oudin current on the other hand is uni- lar and impossible to insulate completely so e best we can do is to keep at least four inches ay from it. However, for fine, delicate work is the current of choice for it can be con- olled with a needle point applicator to the erest spark capable of but little destruction. his is so fine it may be used upon the conjunc- va without damage to the eye.

In most small superficial work such as warts, oles, and keratotic spots the Oudin current is r far the most satisfactory for several reasons. 1 the first place there is but little scarring as ie destruction is superficial having destroyed it the upper dermal layer. In the second place a anesthetic is hardly ever necessary as there but a slight twinge of pain which lasts for a econd and most patients are willing to put up ith it. In the third place there is no danger f infection as the wound is sealed. For this ype of work a small aluminum needle is the est form of applicator. In using this form of pplication the smallest spark possible can be sed and the current be under absolute control t all times. With the Oudin current it is the park which is used for destruction. In some ases the area desiccated is not larger than the ead of a small pin.

The tissue to be destroyed is sparked until thoroughly desiccated and beginning to car- onize. This thin layer of destroyed tissue is hen removed with a forcep or curette and the procedure repeated until solid, healthy tissue has been reached. When this layer has been reached a fine spark over the entire area seals it against infection. In most cases no dressing is required. This type of work is easily per- formed in the office and results are immediate, the patient returning in a couple of weeks com- pletely healed with but a small, white scarcely visible scar at the point where formerly a large wart or mole stood.

In the heavier work in which extensive de- struction of tissue is desired or an intensely heavy spark is required to control a hemorrhage we use the D'Arsonval current. This is a bi- polar current and necessitates the use of a large indifferent pad. For the active pole an aluminum needle of sufficient length and size for the case under treatment is used. In rectal, oral, and vaginal work a needle varying in length from six to fourteen inches is used de- pending entirely upon the location of the area to be coagulated. Insulation of these needles is sometimes necessary and can be accomplish- ed very easily with a small piece of rubber tub- ing although we prefer to use non-conducting specula or retractors.

Twilight sleep is not only the anesthetic of choice but in many cases of necessity giving the profound sleep necessary for continuous work without interruption. The amount of current to use depends upon the work to be done and can only be estimated by experience, for it is impossible to tell exactly the amount and length of time a current should be applied. For light coagulation within the mouth or rec- tum 500 to 1000 milliamperes is sufficient. In heavy vaginal and rectal work from 2000 to 2500 milliamperes is used and for heavy super- ficial work we use from 300 to 1000 milliam- peres of the D'Arsonval current. The time re- quired being from 5 to 30 seconds for each area. In using the above milliamperage it is easy to see the necessity of the operator having at all times absolute control of the current. For this purpose we use a foot switch for turning the current on and off. In no other way can he have absolute personal control.

If the malignancy covers a large area the needle is inserted along the border of the mass and enough current used for a sufficient length of time to completely coagulate the malignant tissue and to heat the normal or semi-normal tissue for a distance of from one-half to two inches around it to a degree sufficient to kill the malignant cell without destroying the nor- mal. This is readily accomplished because of the fact that malignant cells succomb to heat more readily and at a lower degree of tempera- ture than normal cells. Cancer cells are de- stroyed at about 115 degrees F. so in some cases a milder current for a longer period of time is used with the object of driving the heat out into the surrounding tissues. This process is re- peated in different spots along the circumfer- erence and through the entire area until you feel that you are well into the healthy tissue and that all of the malignancy has been reach- ed. The more thorough the cautery the better is your patient's chance of complete recovery. In fact it is far better for the patient to receive no treatment than to leave the job only half completed.

In some cases it is necessary to sacrifice im-

portant anatomical structures in order to reach all portions of the cancer.

To avoid manipulation no effort is made to remove the destroyed tissue this being left for Nature's forces. Most of the soft tissues will come away in from ten days to three weeks after the operation and the hard tissues (bone) loosen in about five weeks to three months. This leaves a healthy sore to heal by granulation and contraction.

Of course it is understood that the condition we call cancer is but the local manifestation of a constitutional condition; the end result of a long series of chemical and pathological changes. It is not a thing that springs into being at once, but like every other living thing in Nature goes through different stages of development to the point where cell degeneration begins. Absorption of toxins now produce cachexia and eventually death of the host.

These things have a bearing on the treatment of cancer for it is evident that in the precancerous stage the return to normal may be effected by removing the cause of an irritation or correcting the diet or plan of living thereby changing the disturbance in chemical balance back to normal. When we speak of destroying the cancer by high-frequency currents we mean the local manifestation.

General carcinosis may be relieved and life comfortably prolonged by appropriate treatment. Coagulation destroys in a few seconds where radium requires weeks to accomplish the same results. Recurrence after a knife operation is common. This usually does not occur because the primary growth had not been entirely removed but because the cancer cells were implanted in the wound. Cancer tissue should be handled with extreme gentleness to avoid metastasis or transplantation.

In cutting with a sharp knife the blood and lymph vessels are cut across and left wide open, an ideal condition for metastasis of cancer cells whereas in using the electric cautery the cancer cells are destroyed and all blood and lymph vessels sealed, thereby removing one of the great avenues of metasis.

Success is obtained by using every measure you have read, seen, or heard about which may be of benefit in restoring your patient to health. In all of our cases we follow coagulation with actinic rays to build up the body forces, restore the depleted blood stream and keep down infection. Special diets of fresh vegetables and fresh fruits are used almost exclusively with but a limited amount of meat or salt. Intravenous medication helps restore the chemical balance and relieve pain.

Ross many years ago obtained much benefit from using the potash salts in cancer but his suggestion was not taken kindly hence was passed by. For several years we have been making extensive experiments along th lines with some remarkable results.

Radium is a wonderful adjuvant. It is most a specific in certain types of cancer an certainly a great aid in all varieties where co plete destruction is impossible.

The following cases are merely to show w can be accomplished:

Case 1. Mrs. R. Age 38. About nine ye ago she had a hemorrhoidectomy perform Since then she has been troubled with bleedi at irregular intervals. Two years ago she gan to have severe hemorrhages from rect regardless of time of defectation but this c dition was aggravated at stool. About months later began to have the characteris mucous and bloody stools with increasing c stipation but the treatment for piles was c tinued. She entered the hospital March 1922, severely distressed from inability to h a bowel movement for 14 days. The abdom was distended to about that of a seven mont pregnancy. A rectal examination was ma and an annular, hard, nodular mass was pal ted about 4 inches from the anus. This m completely occluded the lumen of the bow It was impossible to pass a rectal tube. E mas and cathartics had been used without a results. The following day the patient w anesthetized, a specimen removed and the c ter of the mass destroyed by electro-coagu tion. Bowel movements started 10 hours la and in 18 hours she had 22 movements w complete control. The distention and disco fort had all disappeared and the abdomen w scaphoid. Since the operation she has be having normal bowel movements daily. H appetite has increased and in general her hea has greatly improved.

Case 2. Dr. L. Age 71.* Physician. Ga history of having bowel trouble for seve years being constipated all the time. Treat himself for hemorrhoids. Of late years th were mucous stools at times, pain in rectu aggravated by stools. He consulted a surge who diagnosed his condition as cancer of t rectum and suggested radium which was us 4 different times in large doses but the con tion went from bad to worse. The bowels b came more and more obstinate. When we fi examined him he had been without a bow movement for 10 days and his surgeon advis a colostomy as a last resort. Upon examin tion we found an annular carcinoma of the r tum that completely obstructed the lumen the bowel. It was attached to the sacrum, t bladder, and the prostate. The following d instead of having a colostomy performed v re-established the lumen from below using ele tro-coagulation thus making it possible to ha bowel movements through normal channe Upon awakening the patient was free fro

n, had control of the bladder and was passgas freely. The bowels moved within 24 irs. After five weeks in the hospital the pait was able to return to his home with a ited amount of bowel control. He gained ight and strength rapidly. Upon examina- five months later the area was completely led with no signs of recurrence bowel move- nts were regular and formed with no mu- is or blood in the stools. As far as perma- it relief is concerned we will let the future ide that as all we anticipated doing was to e relief. This patient has gained 40 pounds weight and has taken on new life.

Case 3. Mrs. B. Came to the hospital Sepber 30, 1920, giving a history of carcinoma the cervix of three months' duration, a very l leukorrhea, considerable pain and some eding at times and some loss of weight. Up- examination a very extensive cancer involv- the cervix and anterior vaginal wall was covered. The tissue was soft, necrotic in ts, bleeding at the slightest provocation. ctro-coagulation was advised and accepted. e entire cervix and one-third of the anterior ginal wall were destroyed. The patient awoke e from pain and anxious to be out of bed rdly believing that she had been operated on. On the second day after the operation e went to her home in Indianapolis. Upon amination one year later we found the entire a completely healed with no signs of recurice. This patient's general health has greatimproved and she said that she had had no mptoms during the year.

Summary

The one great disadvantage to this type of eration is the inability of the operator to see e actual depth of the destruction at the time the operation. This obstacle is largely overme by experience. Knowing your anatomy, owing the strength of the current being used, d knowing the time required to destroy a finite area and this disadvantage is minimid. Usually too little rather than too much ssue is destroyed.

The advantages of this type of operation are merous:

1. Malignancies can be destroyed and bleedg controlled at points inaccessible to other easures.
2. The destruction is quickly accomplished. 15 minutes it is possible to destroy a maligancy involving the side of the tongue, floor of e mouth, tonsil, pillars and soft palate.
3. There is little or no traumatism hence miting the danger of infection or metastasis.
4. All tissues are thoroughly destroyed and ll avenues of infection sealed.
5. No hemostats or clamps are used to stop emorrhage thus trauma is minimized and there is less chance of dessimination during the destruction of the growth than there would be by using other well known agents.
6. There is no loss of blood and very little shock. All of Nature's forces thereby being reserved to fight the uneven battle against malignancy.
7. There is practically no pain following this type of operation as all nerve endings are sealed and the usual history is, that the pain the patient had suffered prior to the operation had completely disappeared.

Finally we do not depend upon electro-coagulation in all our cases but on the contrary depend upon the combination of electro-coagulation, radium, actinic rays, etc., hereby obtaining results not attainable with any one of them.

1612 Heyworth Building.

EXPERIMENTAL TESTS AND PRACTICAL APPLICATION OF OZONE WITH AND WITHOUT VOLATILE OILS, IN THE TREATMENT OF CHRONIC BRONCHITIS, PNEUMONIA, PURULENT ASTHMATIC BRONCHITIS, EVEN TUBERCULOSIS

By FREDERICK GAERTNER, A. M., M. D., LL.D., Pa. D. and A. A. A. S., etc.
Pittsburgh, Pa.

PRACTICAL medicine, since time immemorial has been one of experimentation, even at the time when Adam and Eve were driven out of the Garden of Eden for misconduct, they went in search of remedies and experimented in order to heal their wounds and wounded feelings; so it is, down to the present day, experimentation plus experience bring results. The healing art was always considered the physician's highest ambition, and it makes no difference how this healing is done. We read Ecclesiasticus XXXVIII.—1-8.

"Honour a physician according to thy need of him, with the honours due unto him: For verily the Lord hath created him. For from the most high cometh healing."

So you see the art of healing and the healing art go hand in hand with that of practice and experimental medicine.

During the past decade, I have experimented with Ozone with numerous applicances in the treatment of diseases, but I must confess and say that this little Ozonizing Machine produced by the NaPeer Tire Company of Akron, Ohio, figs. 1 and 2, is the machine which produced most wonderful results, hereafter more fully recited.

What Is Ozone

Ozone dates back to the beginning of the Earth; and, I believe, God first produced Ozone in its most concentrated form; i. e., in his ori-

ginal cause. Ozone is nothing more or less than the same oxygen which all of us are breathing into our lungs constantly, except that it is in a much more active state, artificially produced by the passage of air (oxygen) through an electrostatic discharge of high potential, or in other words, a silent sparkless, cold discharge of static electricity; oxygen as it exists in the air consists of two atoms to each molecule, whereas Ozone has three atoms to each molecule, and is an alleotropic form of oxygen, the difference is that each molecule of Ozone has just one-half more oxygen than a molecule of oxygen itself. This is why oxygen in the Ozone state is so much more active than oxygen in the molecule state.

Oxygen has a gigantic power, "affinity" to combine with the original elements, viz., H. to form H^2O, N to form air and carbon to form CO^2. It therefore requires a larger percentage of oxygen to overcome deteriorated, de-oxidized elements in the normal body; and decidedly more so in disease; it is the only element to sustain and maintain life. Whereas, Ozone is one-half times greater in its oxidizing activity than that of oxygen; now then, if that be true, and we can apply medicated Ozone in a practical way, we have reached a point where we can readily dictate to the disease under care and treatment, **thus far and no further.**

In all disease we have loss of tissue immunity, lessened tissue resistance, meaning diminished lymphocytosis, with an altered lymph-circulation, i. e., loss of intrinsic oxidation, thereby disturbed metabolism, osmotic pressure with endosmotic tension. This obstructed lymph-circulation with its pathologic tissue juices carrying among its inorganic chemical elements, nitrogenous products, e. g., purines, enxymes, anti-engymes, etc., frequently even zantine, adenine, uric-acid, uricase and allantoine; these with others the result of minute structural necrosis which, when they become still further stagnated, through obstructive and inflammatory destructive tissue changes, suffers disintegration with disorganization and atomic-death, decomposition, foul molecular formations, pus, liquifaction, etc., with an excess of nitrogen, carbon, sulphur, etc., are liberated—now then, the quickest way to get rid of these foul deteriorated elements is either by evacuation or by ozonization: "Oxidation."

Ozone by ozonization is the most powerful oxidizing agent known to exist; it is poisonous to low organisms, germs, microbes; these infective and putrefactive germs, under ozone, readily break up into free nitrogen and carbon which at once becomes oxidized and eliminated. This can easily be demonstrated by placing this ozonizing machine in a putrefactive foul meat refrigerator, alive with germs, even maggots. In less than 24 hours, t refrigerator with its contents was oxidi and purified, all decomposed, slimy and trefactive substances covering the m looked red and fresh again. We have th the same identical therapeutic effect wit the human body, where we can get the dir ozone contact, i. e., the air passages and lun and I believe the time will soon come wh we can introduce a tube and ozonize the terior of the stomach, and genito-urinary tr with positive results.

Description of This Ozone Generator

Figs. 1-11.

This little generator combines all of t various important and necessary features. is very compact, about 8 inches square, a can easily be conveyed to the patient's hon Its construction is such as to render it almo fool-proof, and can be depended on for pro function even if left in the care of the m inexperienced operator.

The transformer delivers 10,000 volts s ondary current with a primary current co sumption of less than 1-20 of one ampere, th reducing the cost of operation to almost not ing.

The generator consists of two porcela tubes concentrators and a pair of alumint tubular electrodes, one on the outside a one on the inside of each porcelain concentr or. The outer electrodes are securely unit to the porcelain tubes and are embedded in hard rubber block, which affords ample pr tection under all conditions. The inner el trodes are cylindrical, the inner portion which constitutes a cone and is so arranged to expand and hold itself in position in t porcelain. By means of a resilient conta member, the transformer is thrown into e gagement with the inner electrode. Th permits instant removal of the only electrod that are exposed to the atmosphere.

Directly on the top of the generator is a aluminum tray with valve opening to perm the ingress of Ozone. The tray is so co structed that by capillary attraction, mass a traction of fluids is entirely eliminated. Th permits thorough impregnation through t eagerness of affinity and at no time is t Ozone submitted to the least pressure.

Aside from the fact that no nitric acid oxides of nitrogen are produced in this litt machine, I know that the real secret of succe lies in the unique method of suspending t Ozone at or slightly under atmospheric pre sure; and allowing free circulation of Ozo ized air in the sick room.

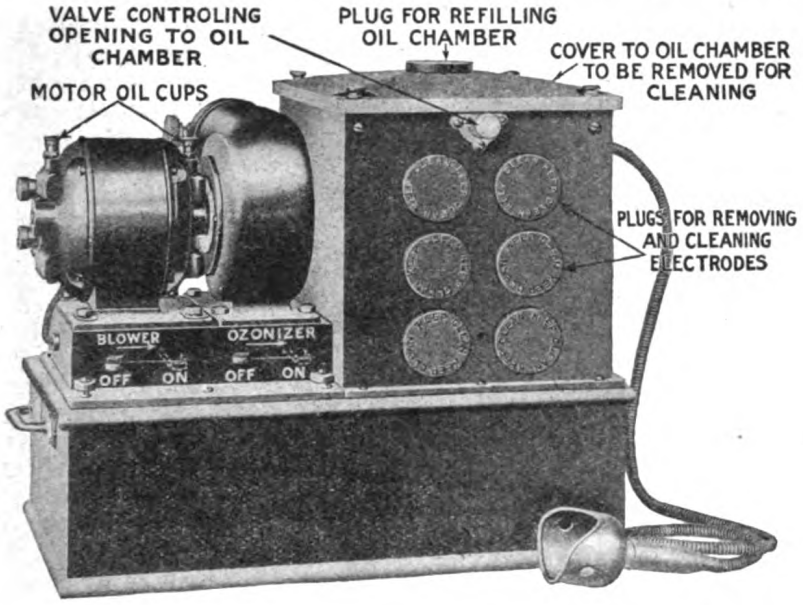
In the Use of Oils

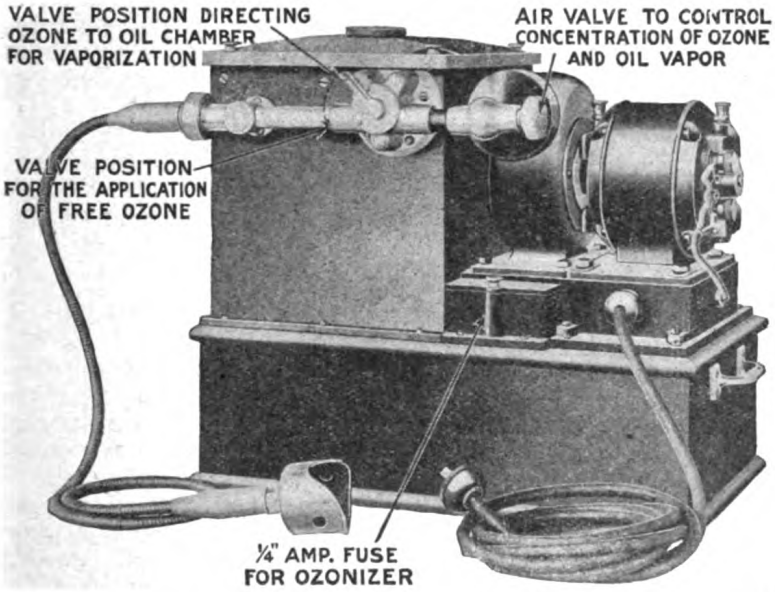
The object of using the oils is to provide safe carrier (Ozonated spray) for conveying

lungs oxygen in a medicated state which mits its ready utilization in considerable ntity. These volatile oils are carried to spread upon the surface of the mucosae n the trachea down to the very air-cells, veoli," of the lungs; here they have a ive or irritating influence, as oftimes compressed, i. e., commercial oxygen does produce depression with collapse.

Various Oils and Preparations to Be Used

It is self-evident that the oils must not be carelessly selected, for they not only act as





ple curative effect, viz: First—Ozonization, cond—Sterilization, and Third—Direct abrption by the little stomata between the ttened epithelium lining, the Alveoli of the ngs to reach the lymph and venous circulaon of the interstitial and intercellular lung sues; right here is the starting point of r direct curative medication.

The inhalation of this Ozone (Nascent Oxym) with volatile oils has never any depressa carrier, but a portion of them are virtually and actually utilized.

I. Australian Oil Eucalyptus Golbulous, four parts, with best oil Pine Needles, one part, mixed well and allowed to age; a minimum of oil Cajuput may be added to each ounce of the above mixture. This mixture is best adapted for conveying medicated Ozone into the air passages and lungs.

II. Glycothymoline as a positive preventative of Influenza.

III. Purified Wintergreen oil in Rheumatism.

IV. Rx Stovaine Crystals 0.50
Morphia Hydrochloride..... 0.25
Pyramidon 2.0
Cherry-Laurel Water.....60.0
Mix and shake well.

Sig. Two to three teaspoonfuls with equal parts of No. 1 mixture. In Laryngeal Tuberculosis, this will give almost instant relief.

I would recommend that all public places, i. e., theatres, libraries, hotels, department stores, office buildings and especially hospitals, should be compelled to put Ozone-Machines in use; not only for the protection of the public, but also the bosses themselves.

Special Instructions

In Tuberculosis of the Lungs. Ozonizing the air of the patient's room is the best method of employing Ozone in this disease with direct inhalations from the ozonizer five to six times daily in periods of from five to thirty minutes, i. e., in exact proportion to the vitality of the patient.

In the application of medicated Ozone for tuberculosis it is an undeniable clinical fact that the number of bacilli in the sputum diminishes after the second or third day, even before the general condition of the patient is improved. Owing to the nature of the disease, it is unreasonable to look for any cure in less than four to ten months.

Whooping Cough. Ozonize the air of the room. Ozone is a remedy par-excellence for Whooping Cough. Amelioration prompt and rapid, may be expected with a cure in a time ordinarily covered by a very light attack.

Asthma, Bronchitis and Hay Fever are greatly benefitted by medicated Ozone. Close inhalations combined with ozonating the air of the room, with wonderful results.

Hay Fever. Ozonating the air of the room constantly for two or three months prior to the expected attack prevents the attack from coming on. But during an attack, direct inhalations give great relief.

VACCINES IN COUNTRY PRACTICE

R. C. MOLLOY, M.D., Birmingham, Alabama.

NOT being a "prominent" physician, and never expecting to be one, I have a certain amount of contentment that does not come to my more ambitious brethren. Following in the footsteps of my father, a country practitioner, I labored for years among the plain people, in all sorts of weather and over all sorts of roads. When the roads became too bad for a buggy, I rode horseback; when too bad for a horse, I walked. A certain amou of feeling develops between a country ph sician and his people which is lacking in t cities. They often feel the need of his pr ence in the night, and since the telephone h come into such general use, he is often invit to their homes when he fain would be in b But when there is sickness, he knows th is no one on whom they can call but himse and he feels his responsibility and goes. matter what the difficulty may be, he has one to call on for assistance, so he puts his "thinking cap" and tackles the troub whatever it may be. His resourcefulness emergencies has been the basis of many a go story. Generally his armamentarium is not extensive as that of his city brethren, but knows mighty well what the remedies he us will accomplish. His opportunity for readi and studying is good, and knowing he m depend entirely upon himself, generally rea his books and papers thoroughly. The lat methods and remedies are thus placed at disposal. During the later years, no meth of treating disease has been as great a bo to him as vaccine therapy. The princip underlying their use is simple, and the kin of pathogenic organisms few. Vaughn sho in his excellent work that the same germs p duce different manifestations, depending what organ or tissue they become locat Therefore, a few bottles of vaccine containi these different pathogenic germs will cove wide field in practice. It is entirely unnec sary, in treating a case of pneumonia, to asc tain whether the organisms belong to First, Second, Third or Fourth Group; or a of the subdivisions of these groups. The tient is going to be dead or well by the ti a differentiation can be made.

Give a vaccine that contains all four grou and give it at once. We know that more d similar pathogenic organisms grow in the bo at the same time, i. e., pneumococci, str tococci, staphylococci, tubercle bacilli, etc. T system produces antibodies for each of th at the same time, and if this were not true patient would die. Therefore, it is unscienti to give a polyvalent vaccine, but it would unscientific to wait. Very frequently the tient is well of pneumonia in two or thi days, and I am sure that is the end to be tained in practicing medicine.

Too much unnecessary scientific procedu without judgment is not conducive to succ in the practice of medicine. A case com flitting through my memory which, brie told, will illustrate this point.

Mrs. G., living in moderate circumstanc widow, with four children, sought advice o specialist for pain in right side, radiating

wards the stomach. Wishing to "get well" quickly, she placed herself in the care of this specialist, who is a good diagnostician and well versed in technic. His examination showed the presence of pus in the pelvis of the kidney. He proceeds to catherize the ureters and then to wash out the pelvis of the kidney with antiseptic solution. A procedure which requires considerable of technical skill and which he was well qualified to perform. However, this treatment was very painful to the patient and she erfused to continue the treatment. He lost his patient. She came to me. She was having chills and running some temperature every day. The pains in right side were severe and radiated well around towards the stomach. Examination of the urine showed albumen, etc.; under the microscope were found the pyogenic organisms, colon bacillus predominated, but there were also staphylococcus and streptococcus germs present. It was a case of infection producing suppurative pyelitis and all additional examination in the world would not have changed the diagnosis. No amount of irrigation could remove the germs that were embedded in the tissue of the gland. Vaccine treatment seemed the more rational to me, as the antibodies created would approach the diseased tissue from the inside. I selected a vaccine containing the pyrogenic organisms found and gave it to her. Five minims the first injection; three days later, ten minims, and five days later, fifteen minims. Improvement was noted at once and continued, gradually. After a few days she was free from pain and the urine no longer contained albumen. In about ninety days she was able to resume her household duties, and has remained well until the present time. As said above, she was in moderate circumstances, and I understand she worked in the field with her children this last summer and made a crop of cotton. The case came to me in March, 1920.

The operation of irrigating the kidney was technical and successful, but unnecessary, and very painful to the patient. It would have been better to have deferred more radical methods until simpler methods had been tried and failed.

I only cite this case to show what can be accomplished with the use of vaccines, and could cite case after case in which vaccines have been of wonderful help to the country physician. In fact, nothing in modern medicine offers the country practitioner the same facility for treating obscure of deep-seated affections as vaccine therapy. I am glad to see its use being extended more and more all the time.

First Natl. Bank Bldg.

Carpings of the Cynic

MALARIA STILL WITH US

IN SOME sections of the United States we have come to think of Malaria as a vanishing "race"—that the mosquito has been banished and the victory of medical science has again been complete.

However, in the May issue, 1922, of the So. Med. Jr., Birmingham, Ala., the volume of matter given to Malaria and its complications and prevention is rather startling. There is given a symposium on Malaria:—Anti-Malaria Campaigns, Malarial Relapses, Statistics in Demonstration Areas, Urban Malaria Control, Fish as an Anti-Mosquito Agency, Use of Oil in Prevention; also Malaria and Eye, Nose and Throat Infection; editorial, Malaria and the South, Results of Treatment of Malaria.

So, we rather conclude that Malaria, like the poor, we have always (yet) with us.

SUPPOSE

SUPPOSE you are a member of your local Medical Society in good and regular standing. And suppose you are attending the American Medical Association at St. Louis, where you are anchored to a perfectly good hotel, buying it on the installment plan. Suppose you are standing around the lobby talking to a bunch of regular fellows—chief surgeons, obstetricians, orthopedists, and so forth. Up comes a perfectly charming young lady reporter with a perfectly good camera man in the offing.

In a perfectly regular way you are introduced and in due course you allow your photograph to be taken in a perfectly natural way, standing by the side of Dr. Hebe Speshlist. After the exposure, the young lady in perfectly good short hand, takes down the history of your more or less young life, and in due course—about half past the next morning—you coyly shy up to the newsboy and purchase a copy of the suspected newspaper. When Lowe & Behold, in perfectly guileless fashion, there is your picture and the history of your life. The joke is best appreciated when the bunch accumulate in the lobby and have a good laugh at the clever newspaper reporter and the urbane camera man.

But—

He laughs last who laughs last.

In due course you take the train back to the home town with said clipping secretiously tucked away in your pocket book, if any.

Now supposing you are back at work in your regular office and the telephone rings in the regular way, if possible, and you sauvely take down the receiver, asking said patient, if any, to please pardon the intrusion, and the voice says, says he:

"Is this Dr. Hebe Speshlist? Well I understand while you were in St. Louis you were doing a little advertising in the public press, if any, and being a member of our Medical Society, in regular standing, you are referred to Section 6, Article 23, which says, 'No advertising'—are you guilty or not guilty?"

—There you are listening to the man on the 'phone as innocent as a goat!

What is the answer?

That's all—there isn't any more!

HARRY NELSON JENNETT.

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

STUFFED CAPSULES

Urge your patients to have their blood-pressure taken at stated intervals. If they have hyperpiesia a few auto-condensation treatments will prevent cardiovascular changes. Prophylaxis postpones post-mortem.

✣ ✣ ✣

He who throws a monkey wrench into another's gearing is liable to be injured by the flying fragments.

✣ ✣ ✣

Evolution or no evolution, some fellows are still monkeys.

✣ ✣ ✣

Abuse of electrical modalities is not an argument against their proper use.

✣ ✣ ✣

A new idea surges through the brain and replaces old fogy notions.

✣ ✣ ✣

¶¶ A blotter is something to look for while the ink is drying.

✣ ✣ ✣

¶¶ One "think tank" may have a large spigot but cannot spray the world.

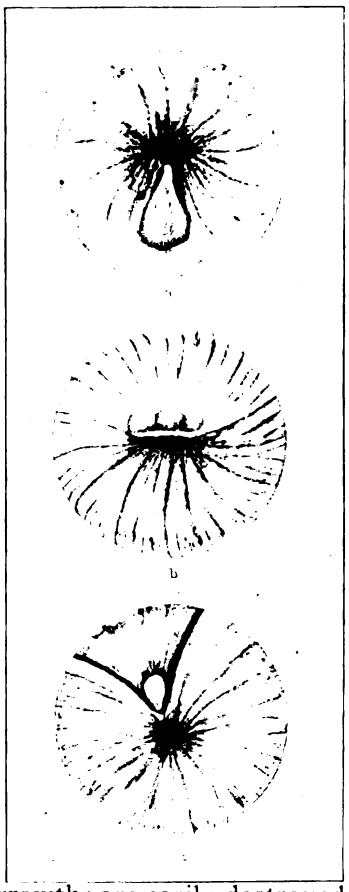
✣ ✣ ✣

¶¶ The hoary headed theory that acute bronchitis cannot be juggulated should be consigned to the junk heap of misconceived notions. Try medical diathermy and be assured.

Dr. William Benham Snow says: "The use of vacuum eye electrodes with the static current is of great value in the treatment of epiphora when the tear duct is closed, but not stenosed if a vacuum electrode is held against the canal and a short spark gap employed, it will remove the infiltration and open the canal. We have done this many times."

URETHRAL GROWTHS

THERE are many pathological conditions of the urethra which are amenable to treatment by high-frequency currents. The accompaning cut illustrates three forms of polypoidal growths which are more or less common. (a) Pedunculated polyp; (b) sesile polyp in the bulbar portion; (c) polyp on edge of crypt of Morgani.



These growths are easily destroyed by desiccation. The technic is simple. After anesthetization by a 4 per cent solution of cocaine, the urethroscope is introduced in a manner to bring the growth well into view. An electrode for this purpose consists of a small needle of sufficient length inserted into the ordinary desiccation handle. Care should be exercised during treatment not to allow the electrode to touch any part of the urethroscope as the current will be dissipated. Plunge the point of the needle into the base of the growth and turn on sufficient current to blanch the tumor. Usually no after treatment is required. If the reaction be intense it may be relieved by irrigations of hot boric acid solution.

Chronically inflamed crypts may be relieved in the same manner.

Cysts of Littre's glands are best treated by dilation with steel sounds.

Society Scintillations

ST. LOUIS MEETING OF A. M. A.

THE members of the St. Louis Medical Society are to be commended for the perfect and thorough manner in which they entertained the A. M. A. this year. Although hotel accommodations were slightly inadequate, due to the presence of other conventions, splendid homes were opened so that all members and their families were pleasantly housed. Section facilities were ideal and happily located away from the downtown business district.

Grand Avenue proved to be a clean, airy and pleasing quarter, well adapted to the business and scientific meeting of the 5,120 physicians who attended the session.

The weather was balmy and commended itself to the numerous indoor and outdoor entainment features provided for the doctors and their families. The president's reception was beautifully arranged, and was the first occasion of this character for many years conducted without an unpleasant jamming and crowding.

An innovation to be pleasantly noted was the visit of the president, Dr. De Schweinitz, and retiring president, Dr. Work, to the various sections while in session, so that all members met them at close range. It was commented upon agreeably from all quarters.

The program clinics were delightfully arranged, the morning clinics were well attended, as were the scientific sessions.

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Washington University contributed much to the completeness of the meeting by opening its doors to many sessions and receptions.

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Ochsner is of the opinion that four cases recover medically to one that demands surgical care. Mayo clinic has a record of 1 per cent mortality in a series of 600 cases uncomplicated.

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Seale Harris dwelt upon concomitant body conditions which prevent healing, ptosis, focal iniections, etc. Alverez of California views the big problem that of recurrences, the one-hundredth case must be cured. The patient must make some sacrifice—smoke less, eat carefully, take care of self from all hygienic points of view.

Coffey paid a great tribute to Sippy and his method of treatment. Various surgical methods were advocated yet without unanimity of procedure, excision pylorectomy, gastro enterostomy, cautery; each has its advocates.

There was a general wave of opinion in favor of medical treatment for the uncomplicated case, even after one, two or three recurrences. The morning was a most profitable one, and the combined section movement for special discussion was declared a success.

GASTRO-INTESTINAL ECHOES OF A. M. A.

The most noted of all sessions was the combined meeting of the sections on medicine, surgery and gastro-enterology held Friday morning at the Third Baptist Church. No grand opera ever drew a more capacity-taxing house. The session was an all-morning one, it was attended by over 2,000 men. The occasion was a symposium on peptic ulcer, and no subject was ever threshed out more completely from all points of view by so celebrated a gathering of doctors. Papers were read by Drs. Bevan of Chicago, Sippy of Chicago, W. J. Mayo, Brown of Baltimore, Finney of Baltimore and Stockton of Buffalo. The discussion covered every possible phase, surgical, medical, diagnosis, x-ray, prognosis, history. Smithies dwelt upon the fact that gastric ulcer is not a disease of the stomach sui generis, but rather a systemic disturbance with local manifestation. Bevan admitted that 90 per cent are cured medically, 10 per cent go to the surgeon, these are the complicated cases. This view is in accord with men today who specialize in this field, and is at variance with the oft-expressed view of Deaver that all stomach cases are surgical.

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J. A. Lichty of Pittsburgh makes a diagnosis of chronic appendicitis by excluding all other possible pathology, local or remote, pathognomonic symptoms are wanting. The general discussion upon the subject, which lacked clearness, failed to convince the reporter and others that there is such a condition as chronic appendicitis.

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F. L. Burnett of Boston thinks the form of the feces and the rate of progress through the intestinal canal is a matter of as much importance clinically as pulse rate and respiratory rate. The fecal mass is a series of units depending upon intestinal integrity. Speaking of skin lesions of intestinal origin, he observes that by the time the stool has assumed perfect cylindrical form, the eczema or the psoriasis is relieved.

C. D. Aaron of Detroit advocated strongly the use of quinine and urea hydrochloride solution in the treatment of hemorrhoids upon the fact that a fibrous exudate results, which reacts happily to the rectum. Practically every one who discussed the subject condemned it strongly, because of stenosis following or hemorrhage or sloughing. Those who had used it had discarded it as dangerous.

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Pennington of Chicago, in discussion of carcinoma of the rectum urges against considering any age limit, and against waiting for blood, mucous and pain, these are all late symptoms. Eighty-four per cent of all cases occur within reach of the exploring finger. One out of eleven of all people have cancer. Take time to examine, explore. Dr. J. R. Pennington was elected president of the section.

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G. R. Satterlee of New York urges toxemia as a fundamental factor in gastro-intestinal disorders. Infection the most prominent element in the production of toxemia. Uses vaccines and sera as the remedies.

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Bassler of New York holds that Colon Bacilli and streptococcus are not the offending organisms. That stock vaccines are useless, if results accrue it can come only from autogenous vaccines.

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Hirschman of Detroit favors the more frequent use of temporary colostomy for the relief of chronic ulcerative colitis, amebic dysentery, tuberculosis and syphilis of the bowel. Such a procedure gives physiologic rest to the colon and diminishes the reverse peristaltic wave. In order to deflect the fetal current from the affected area, colostomy may be done at the cecum or transverse, according to the location of disease. Simon of New Orleans gets excellent results from the use of Methylene blue instead of using colostomy.

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It was the voice not only of Gaithers of Baltimore, but of the section members that x-ray was not the most important factor in the diagnosis of abdominal disease. It is at times useful directly, in other cases only confirmatory, in some cases misleading. It must not conflict with clinical findings. Clinical history and laboratory findings are of more vital importance. The method of dispatching a case to the x-ray man for a diagnosis was deprecated.

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Sailer of Philadelphia regards the work performed by Hcl of gastric juice one of the dispensible functions of the body. Achylia gastriea not to be considered essentially a stomach shortcoming, but rather a systematic one in many cases.

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Smithies declared that after the fourth decade no case of achylia is ever restored. It is frequently associated with pernicious anemia.

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Seale Harris in a study of 500 cases of gastroptosis found 50 per cent showed a low position of the stomach in the standing position. Many people naturally have the stomach low in the abdomen while standing, whereas in lying down it assumes a higher position. In these cases an abdominal support is unnecessary. The important point is tonus rather than position. If the peristaltic wave is good, position need cause no concern.

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Bassler observes that 50 per cent of ptosis cases have toxemia, and in those who recover physical balance, the stomach is found higher in the standing position than in the prone.

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Bryant of New York calls attention to the element of fatigue in these cases and endeavors to prevent them reaching the point of physical exhaustion. Prevention is accomplished by compelling five minutes' rest every half hour all day—that is, those who are not in bed for a period to gain balance. Rest in bed a necessary first factor in treatment if fatigue is an element. J. M. B.

STUDY OF THE INTERNAL SECRETIONS

That endocrinology is growing in favor among medical men and is assuming a solid, scientific foundation, was evidenced at the St. Louis meeting, held at the Statler Hotel, May 22. It was the sixth annual session, held under the presidency of Dr. W. B. Cannon of Harvard. The assembly room was crowded by the enthusiastic, the curious, the doubter, the hopeful, the new convert, but the large attendance indicated a lively interest, and the papers read marked distinct progress. Syndrones and symptom-complexes are being observed and correlated, distinct indications for certain glandular products are being deduced, clinical reports show wonderful results, so distinctly so that real light is dawning upon this new field. Papers were read by Barker and Novak of Baltimore, Tierney of St. Louis, Lesser of San Francisco, Cannon and Griffith of Boston, Luckhart, Henn and Palmer and Dragstedt of Chicago, Janney of Los Angeles and Stanley of San Quentin. Most enthusiastic among those who discussed papers and reported distinct clinical results was

ngelbach of St. Louis. The annual dinner as attended by 200 members, at which time r. Cannon of Harvard read a paper in the eation within the liver of a cardiac excitor, hich is liberated after meals. It has not een isolated. It does not occur after feed- g carbohydrates nor fats, only after meals f animal food. He hopes to be able to re- ort more definitely upon the subject next ieeting. J. M. B.

NOTES AND CHATTER OF THE ST. LOUIS CONVENTION

St. Louis is the only city in the United tates that has the legislative authority to irnish the medical schools material for the ractice of animal experimentation.

—Please give the antivisectionists a shot of rgot and pituitrin, quick!

The motion picture machine was one of the ontinuous performances. Those who saw the urgical operations there and the teaching ossibilities of the movies were made to gasp gain at the "revolutionary changes going on n medical education.

The exhibits were well attended and all the iew stuff was there: The cautery knife and resh meat; the grape juice; the ice cream; he eversharp pencil; the leather back note ook and book agent; the new books; the sugar coated lecture; the dope exposer; the perfect tablet; the perfect day; the perfect diaper, and the perfectly beautiful demonstrat- or, and the cancer in living likeness, and the artificial arm, and the artificial leg, and the artificial eyes, and the artificial investigator— all there and worth your while and effort.

The effort being made to have the indigent given a full, free, medical examination every six months should give the general practitioner pause to arrange a system in his private prac- tice whereby his patients may be notified by mail that on such a (near) date they are to report back for examination; the examination must be thorough, a full blank made out, and presented to the patient. The public will ap- preciate this when they become educated to it and the doctor's business will benefit and the effort to make a complete examination and formulate the result will be educational. This should be given some study.

One of the progressive things of forward medical organization was brought out in the report of the Reference Committee on Legis- lation and Public Relations: That a central bureau should be established for the consider- ation of all legislative matters pertaining to medicine or the practice of medicine, to co- ordinate the activities of the several constit- uent state associations and to ascertain and crystalize the opinions of the medical profes- sion and the said constituent state associa- tions.

—And medical facts for the legislators!

The babe in the woods—the Volstead act— is followed by wolves, Banko ghosts and spirits which will not be still. You may meet it, you may not be disturbed by it. Anyway, whether you prescribe whisky or not—on either side, you are almost with the majority —so the American Medical Association, through its proper committee, deemed it wise to not make any recommendations at this time, but did petition to Congress at this time for relief from the present unsatisfactory con- ditions, and recommends that provisions be made for supplying whisky for medicinal use only, at a fixed price to be established by the government, to be sold in regulation size bot- tles with the price printed thereon.

There was organized at St. Louis during the convention of the A. M. A. an independent organization of medical specialists for Group Clinics and Group Practice. This organiza- tion is to act independently of the A. M. A.

—In the opinion of the writer, this sort of practice is not the answer to the question, "What is to be done for our medical ills?" for the simple and sufficient reason that the dominant figure in medicine is the general practitioner and the successful practice of medicine requires the personal, magnetic touch of the doctor and his art. Patients may be sent to a diagnostic clinic with benefit, but a group practice and treatment can never suc- ceed—will simply "muddy the water."

The A. M. A. took a flat-footed stand in op- position to all "state medicine"—meaning "State medicine" to be any form of medical treatment, provided, conducted, controlled or subsidized by the Federal or any state gov- ernment, or municipality, excepting such serv- ice as is provided by the Army, Navy or Pub- lic Service, for the reason that "ultimate harm would come thereby to the public weal through such form of medical practice."

—Atta boy!

The bugaboo—the Shephard-Towner bill— did not come over in the Mayflower—is a bastard, born in an evil hour, of political par- entage, in the steerage, and of socialistic semen-ship.

—If you know what I mean.

Harry Nelson Jennett.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald

and Electro-Therapist

Incorporating the

Kansas City Medical Index-Lancet

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Vol. LXI JULY 15, 1922 No. 7

The Editors' Forum

Phases Concerning the Poor and the Misinformed

THE old-time doctor who attended the poor family and nursed it, sat up all night with their sick, carried them food from his own table, and of whom the public got the idea that he was a sort of public medical missionary, a public benefactor and an unselfish servant—this has passed, for several reasons. In the first place, the poor as he found them and administered to them have largely passed—they are able to pay now, and refuse to be pauperized. In the next place, the doctor of today spends thousands of dollars for his medical education, studies to keep abreast of the times and sees the sick only from the medical angle, because there are various social and charity organizations to take care of the other phase which today has become specialized.

Not only this, but "The development of scientific knowledge in the last 50 years has produced an entirely different conception of the relation of disease to society, of the duty of society to the individual, and of the individual to society in the control and prevention of disease. The economic relation of physicians (both as individuals and as a body) to their patients is still practically the same individualistic relation that it has been."

There is no medical propaganda to meet this free press, free speech, free forum, free rostrum tirade on the medical profession today. Formerly there was a sort of sanctity about the family doctor. Today he advises vaccination and some one over in the ling department, maybe, boldly and fearle speaks right out and says, "Why that's bunk!"

The doctor treats a neuritis, and a c in the shoe store says, "Why don't you the Chiropractor?" He does, and the c says, "You just came in time; your join out of place."

The doctor treats a case of pneumonia; relatives in the kitchen hold a consult and decide to call in a pseudo-practor, a your absence, have him come in and your patient.

When the truth finally dawns upon pati who have been humbugged and misled by various cults, the resulting disbelief of family reaches out and includes the re doctor as well. H. N.

Synthetic Chemicals Made in America

THE wonderful progress made by our erican chemical houses in the manufac of synthetical chemicals since the w is perfectly astounding to the uninform Prior to 1914, the medical profession has b completely dependent upon European hou for salvarsan, now known as Arsphenami aspirin, acetanalid, barbital, cinchophen, vocaine, luminal, anesthesin. During the w vast sums of money were invested in the ma ufacture of dyes and synthetic compounds America. Most of us have been too b using these agents to stop and realize tha no longer draw on Germany for them. movement has not been based upon a n financial foundation, it has been a patri venture. Our government was anxious the most essential of these compounds made by our own houses. The American ents were the property of enemy aliens, to overcome this difficulty, the Trading W the Enemy Act was passed, which authoriz the issuance by the Federal Trade Commissi of licenses to manufacture these chemica Since that time American houses have be energetic in their efforts, with the result th we are now independent of European mar ets.

This question has been very thoroughly pr sented in the American Pharmaceutical Jou nal of February 22, in an article by Alfred Burdick, M.D. An appeal is made to th medical and pharmaceutical professions t help on the work being done by America chemists and give them moral and financi support, to the end that American product may not only maintain their own with fo eign ones, but may excel, and this may onl

ccomplished by loyalty to our home insti-
ons and by a refusal to be led astray by
propaganda in favor of imported chem-

J. M. B.

Biographical



Dr. T. Howard Plank,

resident-Elect, Western Electro-Therapeutic Association, Chicago, Illinois.

THE subject of our sketch was born in Eyota, Minnesota, of Holland parentage, in 1872. When 10 years of age his parents removed to South akota, where T. Howard attended country school ntil his removal to Chicago in 1892. After attending the Lewis Institute for some time, he entered he Chicago Homeopathic Medical College, and was raduated from this institution in 1896. After spending four years in the dissecting room, teaching anatomy, and several years as professor of genecology, e entered the medical department of the University f Illinois (P. & S. Chicago), and was graduated rom this institution in 1905. In 1920, Dr. Plank ecame chief of the department of malignancies at the American Hospital, Chicago, which position he now holds.

Dr. Plank is ex-president of the Central Society of Physical Therapists; ex-president of the National Physical Therapeutic Society; vice-president of the American Electro-Therapeutic Association, and member of the American Medical Association, Illinois State Medical Society, a member of the A. I. H. and affiliated societies, and holds a membership in the Radiological Society of North America.

Dr. Plank became prominent in physiotherapeutic circles by being one of the first to write a book on "Actinic Ray Therapy." He has written much and well; his contributions to the literature of Phototherapy have been of such high order that he has become recognized as an authority on the subject.

His painstaking research work carried on at the American Hospital and his clinical experience in the treatment of cancer by surgical diathermy has won for him an enviable reputation in bloodless surgery.

Dr. Plank is endowed by nature with a genial disposition and the happy faculty of making friends wherever he goes. His presence at the meeting of the Western Electro-Therapeutic Association in Kansas City has been the means of producing much enthusiasm along the lines of work in which he is a past grand master. We predict a most successful meeting next year under the presidency and guiding influence of Dr. Plank.

MELTING POT

¶ The new medical building, now assured for the Missouri State University, Columbia, will relieve the teaching and enrollment congestion, thereby equalizing laboratory space, by providing adequate space for medical library, by providing increased advanced and research work space.

¶ The element of health is still far from being the prime requisite of a loaf of bread. But the whiteness and lightness of the baker's loaf in the eyes of the consumers is the sine qua non. Such bread is void of the full nutritive value of the wheat and the full vitamine content.

¶ The J. A. M. A. Propaganda for Reform, exposes the United States National Adjustment Company, Chicago, and the National Adjusting Association, also of Chicago, which collect accounts for physicians and forget to remit.

¶ The large dose of diphtheria antitoxin is quite popular. The writer has always been an advocate of the smaller dose; yet the size of the dose is not nearly so essential as the early administration. The writer seldom gives the second dose, but should no marked improvement follow in eighteen to twenty hours after giving 2,000 or 3,000 units, the dose is repeated. Massive doses seldom do good in late administration.

Actinic Ray Therapy

T. HOWARD PLANK, M.D.

X-RAY DERMATITIS

One of the most interesting features of actinic ray work is the interest being shown in the effect of the rays on X-ray and radium dermatitis where very positive, beneficial results are being obtained. Give treatments of about one minute duration to start with, increasing one minute daily to the blistering point. T. H. P.

RETROSPECTIVE-PROSPECTIVE

The splendid meeting of 1922 presided over by that excellent executive, Dr. Curran Pope, is now history. It is none too soon to begin to plan for the gathering to be held in Kansas City in 1923. The scientific papers read at the Western Electro Therapeutic Association will be printed in this Journal from month to month, thereby affording an ever welcome opportunity for rethinking the splendid material brought out at the last meeting.

The officers of your association wish every member of the Western Society would write the Secretary informing him of the things he or she would like to hear or see demonstrated at the 1923 meeting. It is just as easy to present to the members the things they want to hear and see as it is to give them papers and demonstrations in which they are not interested. Let Dr. Fassett hear from you.

T. HOWARD PLANK, President.

I WEIGHT MY MIND

I weight my mind as best I can to keep it close to earth
With chunky little platitudes and bits of twisted mirth.
For dust will gather on your books and magazines will lie,
—Lie?
Unless you learn to keep your mind from gadding in the sky.
—Apologies to K. W. Baker,
In June Delineator.

I weight my mind as best I can and fly no aeroplane
Nor medical skyrockets shot that ne'er reach earth again;
Such stunts and flights are fancy stuff, and gadding! I have found
That one should keep one foot and ear quite closely to the ground!!
Do which?

H. N. Jennett.

German measles is very contagious. It is caused by a virus found in the secretions of the mouth and nose and is carried in the breath in talking and coughing. It runs a mild course.

The Doctors' Library

"Next to acquiring good friends, the be
acquisition is that of good books."—C. C. Colto

The Practical Medicine Series—Comprising
volumes on the year's progress in medicine and
ery, under the general editorial charge of Ch
L. Mix, A. M., M. D., Professor of Physical Dia
sis in the Northwestern University Medical Sc
The price of the eight volumes of series 192
$12.00. Published by the Year Book Publishers,
Dearborn Street, Chicago, Ill. Volume three of
series, Nervous and Mental Diseases, prices $1.7
edited by Peter Bassoe, M. D., Associate Profe
Nervous and Mental Diseases, Rush Medical Col

The past year's contribution to mental and ner
diseases have been many. Much German mat
held up by the war, has been released. Note
is syphilis of the nervous system, by Genwich
Nonne. Also the lasting value contributions of
French, "dealing with paralysis agitans and the
quelae of Epidemic Euceptralitis." And America
ferings are valued. The more important condensat
of the accomplishments of the "Association for
search in Nervous and Mental Diseases," are rel
in this volume. The general physician or speci
wishing a year's medical literature, condensed, w
sifted, has much time saving information in this
ume, or either of the serial volumes, at a small
—S. G. B.

THE MONKEY GLANDS

By Roy K. Moulton

I keepa da monk and I playa da org
And I maka da plenty mon.
Da monk do da dance and passa da cup
And maka da keeds da fun.
Withouta da monk, I maka no biz
And panic will come instead.
Oh, what will become of Italian boy
When all of da monks ees dead?
Eet maka me sick by da heart to know
They cuta da monk for glands,
And tney will be after my monk, too.
Dees ees a helova lands.

Oh, why not they carve up da hippopot,
That mountains of flesh and bone,
Da lion, da snake, or da elephant,
And leav-a da monk alone?
Da times will not be what they used to is
Withouta no monk and cup;
Oh, why not they carve up da poodle-dog
Or some other reech man's pup?
My heart, she ees very sad today,
No song by da night I sung.
Oh, why should they keela my leetle friend
To maka da old man young?

THE WANT

Always the beauty of the quiet night,
The deep, vast silence over land and sea
Fills all my soul with some strange aching pain,
Some restless longing that o'erwhelms me.

I know not what it is that I desire,
Whether it be the things of earth or sky,
But the hushed silence of a starlit night
Always awakes a pain that will not die.

—Katherine Edelman.

Are You a Member?



"Come with us and we will do thee good"

ORGANIZED at Council Bluffs, Iowa, September 27, 1888. Objects: "The objects of this society shall be to foster, advance and disseminate medical knowledge; to uphold and maintain the dignity of the profession; and to encourage social and harmonious relations within its ranks."—Constitution.

THE MEDICAL SOCIETY OF THE MISSOURI VALLEY

Thirty-fifth Annual Meeting at St. Joseph, Mo., September 21-22, 1922

OFFICERS

President
Paul E. Gardner
New Hampton, Iowa

First Vice-President
J. H. Lehnhoff
Lincoln

Second Vice-President
Austin McMichael
Rockport

Treasurer
O. C. Gebhart
St. Joseph

Secretary
Charles Wood Fassett
Kansas City

Chairman Arrangement Committee
Floyd H. Spencer
St. Joseph

MEDICAL SOCIETY OF THE MISSOURI VALLEY

Minutes of the executive session held at the Hotel Altimore, Kansas City, Mo., October 27, 1921, the resident, Dr. W. O. Bridges, in the chair. The eading of the minutes of the last session was omitted upon motion, the same having been printed in he official journal.

The secretary read his annual report as follows:

Thirty-third Annual Report of the Secretary, October 28, 1921.

To the officers and members—I have the honor to submit the thirty-third report of the secretary of our association. The last annual meeting of the society was held at Hotel Fontenelle, Omaha, Neb., Monday and Tuesday, September 6th and 7th, under the presidency of Dr. Charles Ryan of Des Moines, Ia. An excellent program of twenty-one papers was presented to an audience of 150 members.

The annual dinner was held in the ball room of the Fontenelle on Monday evening at which time the president, Dr. Ryan, presented an entertaining address upon the progress of our profession. The guest of the evening was Dr. Karl Albert Meyer of Cook County Hospital, who presented an able paper, "Ulcer Cure Following Gastric and Duodenal Perforation."

The members of the society were entertained at a luncheon by the medical profession of Omaha on Tuesday noon at Hotel Fontenelle, the hour being profitably spent "talking shop" and renewing acquaintances.

At this meeting Dr. Willson O. Bridges was elected president of the society. Dr. Bridges has the distinction, I believe, of being the only member ever elected to the high office in this association while he was "Half Seas Over." This must not be construed as being any reflection upon the doctor, nor in violation of the 18th amendment. The fact being that at the time of his election Dr. Bridges was on a liner, in mid-ocean, returning to the United States from a trip abroad.

The secretary takes pleasure in announcing to the society that affairs are once more getting into full swing after the natural depression of wartimes, as evidenced by the admission of 30 new members.

During the year we have lost the following members by death: Dr. John M. Knott of Sioux City, Ia., one of the founders of our association, died May 15, aged 75 years; Dr. Joseph M. Aiken, Omaha, Neb., died November 18, 1921, aged 63 years. Dr. Aiken was vice-president of our society in 1918. Dr. L. A. Lynch, Kansas City, died January 3, 1921, aged 29 years; Dr. Mary A. Quincy, Ashland, Neb., died December 7, 1920, aged 63 years; Dr. Pierre I. Leonard of St. Joseph died September 12, 1921, aged 59 years. Dr. Leonard had been a member of our society since 1901 and faithful in attendance. He had been for many years associate editor of the Medical Herald.

In conclusion, I desire to extend my sincere thanks to the individual members, to the committees, and the officers for kind co-operation during the year.

Respectfully submitted,

CHARLES WOOD FASSETT, Secretary.

The secretary presented the following list of 27 applications for membership, the same being duly elected:

Herman L. Kretschmer, 122 S. Michigan Blvd., Chicago, Ill.
J. M. Allaman, St. Joseph, Mo.
W. P. Brockett, Kansas City, Kas.
J. J. Brady, Frankfort, Kas.
A. W. Bleil, Kansas City, Mo.
A. L. Berggren, Beverly, Kas.
A. D. Cloyd, Omaha, Neb.
M. H. Clark, Kansas City, Mo.
Logan Clendening, Kansas City, Mo.
A. M. Davis, Chanute, Kas.
Guy Hodges, Rogers, Ark.
H. A. Hickok, Kansas City, Mo.
W. L. Kenney, St. Joseph, Mo.
C. A. Lutgen, Auburn, Neb.
L. Mason Lyons, Kansas City, Mo.
Damon Walthall, Kansas City, Mo.
R. N. McMillen, Iola, Kas.
J. M. Mattenlee, Sapulpa, Okla.
R. W. Moore, Eureka, Kas.
Jas. W. McCarty, Lenox, Mo.
Herman S. Major, Kansas City, Mo.
H. V. Prescott, Dallas City, Ill.
Jas. J. Snipes, Lincoln, Neb.
Fletcher Taylor, Kansas City, Mo.
Franklin E. Way, Kansas City, Mo.
Ralph M. Waters, Sioux City, Ia.
Richard L. Sutton, Kansas City, Mo.

The election of officers being the next order of business, the name of Dr. Paul E. Gardner of New Hampton, Ia., was presented and the doctor was unanimously elected president for the ensuing year. The other officers elected were as follows:

First vice-president, Dr. J. H. Lehnhoff, Lincoln, Neb.

Second vice-president, Dr. Austin McMichael, Rockport, Mo.

Treasurer, Dr. O. C. Gebhart, St. Joseph, Mo. (re-elected).

Secretary, Dr. Charles Wood Fassett, Kansas City, Mo. (re-elected).

Upon motion of Dr. C. R. Woodson, St. Joseph was selected the next place of meeting for the society, September, 1922.

The secretary called attention to the fact that one of our old members, Dr. C. Lester Hall, was confined to his home with a fractured hip.

Upon motion of Dr. Lord, the secretary was authorized to express to Dr. Hall the sincere sympathy of the association in his affliction, and hoping for his early recovery. The chair suggested that we "Say it with Flowers," and it was so ordered.

Dr. Lord proposed a vote of thanks to the various committees, Chamber of Commerce, and the ladies of Kansas City for their generous hospitality, which was seconded and carried unanimously. Dr. Lord then spoke for a few moments in appreciation of the opportunities offered by the joint convention of the Missouri Valley and Southwest. It gave us, he said, a chance to extend our acquaintance among the physicians of the Southwest, and altogether was a most happy and profitable occasion. He hoped that the affair would be repeated.

Upon motion the secretary was authorized to draw upon the treasurer for $75.00 to apply on expenses of this meeting. There being no further business, the society adjourned to meet in joint session with the Southwest.

NOTE: Additional minutes will be found in the report of the joint meeting of the Medical Association of the Southwest and the Medical Society of the Missouri Valley on pages 292-293, November issue of the Medical Herald.

CHAS. WOOD FASSETT, Sec'y.

CLINICS AT THE ST. JOSEPH MEETING

Dr. Floyd H. Spencer, chairman of the arrangement committee, announces that a series of clinics will be held in the various hospitals at St. Joseph on September 19-20, preceding the meeting of the society on September 21-22; headquarters and meeting place at Hotel Robidoux, where the commercial exhibits will also be held. One of the features of the first day will be a symposium on the "Early Recognition of Cancer." Dr. C. W. Hopkins, chief surgeon of the C. & N. W. Railway will give an illustrated lecture on "Injuries and Surgery of the Spine" the first evening. Other features and preliminary program will appear in the next issue of the Medical Herald. Members desiring to present papers, will kindly send their titles to the secretary without delay, as the program will close August 1.

MISSOURI VALLEY NEWS

The many friends of Dr. S. Grover Burnett will be interested in learning that the doctor is slowly convalescing, after being seriously ill for more than a month.

✣ ✣ ✣

Dr. C. Lester Hall, one of the pioneer surgeons of the West, and most beloved of Kansas City's "Old Guard," died at his home on June 10, following a stroke of apoplexy while he was in St. Louis attending the meeting of the American Medical Association. A sketch of Dr. Hall's life and his work will appear in the next issue of the Medical Herald.

✣ ✣ ✣

Dr. T. Howard Plank, president Western Electro-Therapeutic Association, was a recent Kansas City visitor during the convention of the Co-operative Clubs of America.

✣ ✣ ✣

The annual Marshall County clinic was held at Marshalltown, Ia., June 15, President Keyser in the chair. The speakers were Dr. Hugh T. Patrick of Chicago on "Differential Diagnosis of Functional From Organic Nervous Diseases." Dr. John W. Shuman, Sioux City, Ia., on "The Goiter Problem," and Dr. E. C. Rosenow of Rochester on "Focal Infection." About two hundred doctors attended. Golf, a banquet at the Elmwood Country Club and an "Athletic" contest at the American Legion Club furnished the recreation for the day.

✣ ✣ ✣

A degree of fellowship of American College of Physicians was conferred upon Dr. J. Rowntree, at the American Congress of Internal Medicine held at Rochester and Minneapolis recently. A total of seventy-five degrees were given to men from every state of the union, eight being conferred upon Iowa physicians. They are: Dr. G. N. Ryan, Des Moines; Tom Throckmorton, Des Moines; S. Gaumer, Fairfield; W. Meis, Sioux City; J. Shuman, Sioux City; E. M. Williams, Sioux City.

✣ ✣ ✣

An entire floor in the Coca Cola building in Kansas City, Mo., will be utilized as a clinic for ex-service men. Equipment valued at $40,000 has already been installed. Examinations for ratings and compensations will be the primary object of the clinic and patients will be treated for ailments contracted while in the service. The clinic will care for 150 daily. The staff, consisting of twenty-two consultants, hydrotherapists, physiotherapists, psychiatrists, orthopedists and eye, ear, nose and throat specialists will be in daily attendance under the direction of Dr. Paul F. Stookey and J. R. Smiley. A dispensary will be equipped for the outpatient department with a drug room in charge of a registered pharmacist, and a roentgen-ray room with developing apparatus will be operated in connection with the clinic.

✣ ✣ ✣

Dr. J. T. Swanson announces the removal of his laboratory to 815-824 Shukert Building, 1115 Grand Avenue, Kansas City, Mo.

✣ ✣ ✣

The drive for $100,000 to complete the new Methodist Hospital at St. Joseph has been closed successfully. The work which has been interrupted for two years will now go forward.

✣ ✣ ✣

At the annual session of the South Dakota State Medical Association, held in Huron, May 16-18, the following officers were elected: President, Dr. Gilbert G. Cottam, Sioux Falls; vice-presidents, Drs. Francis E. Clough, Lead, Robert L. Murdy, Aberdeen, and William R. Ball, Mitchell, and secretary-treasurer, Dr. Robert D. Alway, Aberdeen. The 1923 session will be held in Watertown.

✣ ✣ ✣

At the annual session of the State Medical Association of Texas, at El Paso, May 9-11, the following officers were elected: President, Dr. Joseph Becton, Greenville; president-elect, Dr. Arthur C. Scott, Temple; vice-presidents, Drs. Foster R. Winn, Alvin, Charles P. Yeager, Kingsville, and James A. Daniels, Carthage; treasurer, Dr. Khleber H. Beal, Fort Worth, and secretary-editor (re-elected), Dr. Holman Taylor, Fort Worth.

✣ ✣ ✣

Dr. Granville N. Ryan of Des Moines has been selected by the Democrats as their candidate for congress from the seventh district.

✣ ✣ ✣

At the annual meeting of the Oklahoma State Medical Association held at Oklahoma City, May 9-11, the following officers were elected: President, Dr. McLain Rogers, Clinton; president-elect, Dr. Ralph V. Smith, Tulsa; vice-presidents, Drs. Edmund S. Ferguson, Oklahoma City, William A. Tolleson, Eufaula, and Ernest B. Dunlap, Lawton, and Dr. Claude A. Thompson, Muskogee, secretary-treasurer-editor.

✣ ✣ ✣

Dr. Edwin C. Ernst, St. Louis, was elected president of the American Roentgen Ray Society, central section, at the meeting held recently in Chicago.

Dr. and Mrs. Frank Coulter, Omaha, have recently returned from a trip to the Great Southwest.

✣ ✣ ✣

Dr. and Mrs. Harold Gifford, Omaha, have returned from a midwinter trip to British Guiana.

✣ ✣ ✣

Dr. G. E. Bellows has accepted the chairmanship of the Health and Sanitation Committee of the Kansas City Chamber of Commerce.

✣ ✣ ✣

Dr. and Mrs. Skinner are spending their vacation in California, and will return September 20.

✣ ✣ ✣

The following consulting staff for hospital No. 2, St. Joseph, has been appointed: Dr. E. C. Renaud, Laryngology and Rhinology; Dr. M. J. Farber, Dermatology; Dr. Charles Greenberg, Genito-Urinary; Dr. Caryl Potter and Dr. H. K. Wallace, Surgeons; Dr. J. G. Morgan, Dental Surgeon; Dr. W. H. Minnis, Ophthalmology; Dr. R. Disque, Otology; Dr. H. H. Fuson and Dr. C. A. Good, Internists; Dr. A. McGlothlan, X-Ray.

MEDICAL ASSOCIATION OF THE SOUTHWEST—CHANGE OF DATES

On account of conflicting dates with another convention, the Medical Association of the Southwest has changed the dates of its meeting at Hot Springs, Arkansas, to October 16, 17, and 18. The section chairmen are now at work upon the program, and further announcements will appear in our next issue.

Chicken pox is contagious and attacks children. It runs a mild course of about a week. The virus is found in the mouth and nose, but not in the eruption, which resembles smallpox.

MEDICAL SOCIETY CALENDAR. FALL MEETINGS

American Academy of Ophthalmology and Otorhinolaryngology, Minneapolis, Sept. 19-23.

American Association of Railway Surgeons, Chicago, October 18-20.

American Electrotherapeutic Association, New York City, Sept, 19-22.

Medical Association of the Southwest, Hot Springs, Ark., October 16-18.

Mississippi Valley Medical Association, Rochester, Minn., October 10-12.

Missouri Valley, Medical Society of the, St. Joseph, Mo., Sept. 21-22.

Southern Medical Association, Chattanooga, Tenn., Nov. 13-16.

Western Surgical Association, Minneapolis, December 8-9.

WRONG MEDICINE

The family had been having an epidemic of colds and sore throats. Each received the family doctor's favorite prescription for powder and garlic. Finally, the maid fell ill. The lady of the house tried to give her the powder and garlic, but she insisted on having the doctor. When the doctor came, he prescribed as usual.

"Now, you see," said the lady of the house, "he's giving you exactly the same things as I took."

"I won't take them," responded the maid. "Doctor, you are a sensible man. I ask you, is it right that a single girl should take the same medicine as a married woman with children?"—London Answers.

The Management of an Infant's Diet

Diarrhea of Infants

Three recommendations are made—

Stop at once the giving of milk.
Thoroughly clean out the intestinal tract.
Give nourishment composed of food elements capable of being absorbed with minimum digestive effort.

A diet that meets the condition is prepared as follows:

Mellin's Food . . **4 level tablespoonfuls**
Water (boiled, then cooled) . **16 fluidounces**

Feed small amounts at frequent intervals.

It is further suggested:—As soon as the stools lessen in number and improve in character, gradually build up the diet by substituting one ounce of skimmed milk for one ounce of water until the amount of skimmed milk is equal to the quantity of milk usually given for the age of the infant; also that no milk fat be given until the baby has completely recovered.

Mellin's Food Company, Boston, Mass.

Current Comment

WORDS TO AN IRISH AIR

If I had a lover, now, who would he be?
Yourself with your laughter, your gallantry?
Yet I'd know when you kissed me your heart was not mine,
But kneeling in tears at a lost lady's shrine.
Or if I should seek him who loves me too well,
Do you think with my head on his breast he could tell,
Would he know that however I strove to be true
My vagabond heart was still following you?
This dicing of hearts is a perilous game:
Be it one or another the end is the same,
There is sure to be sorrow howe'er they fall,
So I think I shall not have a lover at all.
—Aline Kilmer, in "Vigils" (Doran).

Choosing an Anodyne—In choosing an anodyne, especially if its use must be continued for a considerable period, the physician must offer the patient the greatest possible protection against habit-forming. If hypodermic injections of morphine are employed the patient soon establishes in his mind the direct relationship between the morphine and the relief gained. This intimacy of knowledge of the effects of morphine thus acquired really becomes a danger to the patient. He is too apt to apply it. For this reason an opiate preparation that is not so easily identified is far preferable to hypodermic injection. Papine (Battle) fulfills this requirement. It possesses definite anodyne powers and yet the patient does not so easily connect these anodyne properties with its opium contents. Papine (Battle) is a well balanced combination and when an opiaitc is definitely indicated it may be used with profit.

THE VAGINAL DOUCHE

It would be interesting to consider the various opinions held by physicians, both in general practice and specialists, regarding the practical efficiency of the vaginal douche. Medical opinion seems to vary regarding the significance of the symptom ordinarily referred to as Leucorrhoea. The latter is a very common condition and often exists in cases in which there is no plainly defined indication for special treatment of any diseased condition. On the other hand, of course, there are many cases in which Leucorrhoea simply points the way to a condition which needs careful attention. Two factors always enter into the causation of Leucorrhoea—one, irritation of some sort, and the other hypersecretion. In many cases, the use of an astringent, antiseptic and at the same time soothing and healing combination is clearly indicated, and for such purpose clinical expense extending back over many years has demonstrated the practical value of Micajah's Wafers. This combination is an eminently practical one, having been, in fact, originated by a busy country doctor and handed down by him to several of his colleagues and later having come to be placed at the disposal of the medical profession at large by its manufacturer and ethical advertiser. Micajah's Wafers are simple in composition, but effective in action. They are easy to use and they fill a long-felt want for an agent which will at one time prove effective without producing any unpleasant or untoward results. Micajah's Wafers are easily used as such, or they may be powdered and used with the insuflator or dissolved and used in solution. The preparation has many advantages over the ordinary antiseptic preparation commonly used, and it only requires, at the hands of the physician, a practical, clinical test of the preparation to demonstrate its all-'round efficiency. Samples and interesting literature regarding the nature and uses of Micajah's Medicated Wafers will be sent to any physician on request to the makers, Micajah & Company, Warren, Pa.

EPILEPSY

The usefulness of Peacock's Bromides in the management of epilepsy has been conclusively demonstrated. Naturally the dose and manner of administration has to be adjusted to each particular patient's needs, but the practitioners who have had most experience with this preparation have learned that no matter how large the dosage of bromides required, or how long the period over which it may be needed, Peacock's Bromides may be employed without fear of inducing a drug habit, as it contains no narcotic of any character. It is just a pure, constantly uniform and exceptionally palatable preparation of the bromides of Potassium, Sodium, Ammonium, Calcium and Lithium, containing 15 grains of these salts in each drachm.

CARDIAC AILMENTS

There is no class of ailments that occurs more frequently than functional derangements of the heart, such as palpitation, arrythmias and depression of the heart beat. These troubles are found largely in the well-to-do classes, and are usually the result of tobacco, alcohol, sexual excesses or nervous exhaustion. In all the above-mentioned heart affections, marked benefits can be obtained from Cactina Pillets. The features of this preparation, which are particularly worthy of mention are its convenience, its freedom from accumulative or habit-forming tendencies, and its uniformly tonic and steadying effect on the weak and overworked heart muscle. The painstaking and systematic administration of Cactina, therefore, accomplishes results in all functional affections of the heart that have led thousands of American physicians to employ and recommend it in preference to any other cardiac remedy for routine or prolonged use.

No public-health evidence is more definite than that vaccination, properly performed, protects against smallpox. The more persons vaccinated, the fewer cases of smallpox will we have.

In Acne DERMATONE Does ZEMATOL Does in Eczema

Use Them and Prove Them

Backed by 25 years of successful clinical experience.

Catalog of pharmaceuticals mailed on request

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The Value of Mountain Valley Water in Renal and Hepatic Insufficiencies

The autointoxication and vascular hypertension so frequently associated with renal and hepatic insufficiencies are alleviated by therapy directed toward the support of the failing emunctories.

Elimination must be maintained.

Mountain Valley Water meets the indication: it is a soothing diuretic, a cholagogue, and a mild stimulant of intestinal peristalsis. Its alkaline bases combine with the accumulated acid radicles in the blood and thereby combat the tendency to acidosis.

Prescribe Mountain Valley Water, from Hot Springs, Arkansas, in liver, kidney and high tension cases.

Literature to Physicians

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Medical Melange

THE OPPORTUNIST

May Williams Ward

Said little Miss Mischief, said she to me,
"I always like things in groups of three.
Tucks for my tuckers and pinafores,
Rows of ruffles and groups of gores."

When I went out Miss Mischief to see,
I found there were others ahead of me—
A chap on her bow and one on her lee—
And I recalled that she said to me
That she always liked things in groups of three

When the others left I stayed and stayed;
For a single kiss I begged and prayed;
When at last she yielded she said to me,
"I always like things in groups of three."

But while I'm getting, I get plenty,
And so I took them in groups of twenty!

HOT SPRINGS, ARKANSAS

Is recognized throughout the entire world as America's most famous **Health** resort.

Mountain valley water has exerted a tremendous influence toward establishing this reputation, for of the thousands of men, women and children who go there each year to drink the famous waters of that resort, between 80 per cent and 90 per cent of them drink mountain valley water under instructions of their doctor, or because someone who has been benefitted has recommended this remarkable water.

Our own experience of twenty years has convinced us, and the testimony of reputable physicians has confirmed our conviction, that mountain valley water is the greatest water in America in the treatment of Bright's disease, Rheumatism, diabetes, high blood pressure, hardening of the arteries, excessive uric acid, and kindred diseases of the kidneys' bladder and stomach. Consequently, our claims for it are based on the actual experiences of those who have used it, and are using it, and on the statements of prominent physicians who know its remarkable qualities. All of our claims are based on letters and statements that have come from the users of this water, and from reputable physicians who are prescribing the water continually. Address Mountain Valley Water Company, 550 Grand Avenue, Kansas City, Mo., or phone your order, calling Harrison 7084.

A VEGETABLE DIASTASE

Digestive agents are for emergency use. It would be unfortunate indeed if the manufacturing chemists had to be depended upon permanently for any of the various enzymes that contribute to the conversion of the food into absorbable and assimilable products. But when one of these enzymes or ferments is lacking, a substitute must be supplied or the whole digestive process goes wrong. The ferment most frequently defective is ptyalin. There is always more or less of it, but if it is not present in adequate amount the question arises: How can it be best supplied? or what can be most satisfactorily substituted for it? Instruct the patient to masticate his food; but if teeth or the salivary glands are out of order we have an indication for Tanka-Diastase, an artificial digestive enzyme that will duplicate the work of the ptyalin. A great many physicians are prescribing Taka-Diastase freely. It is a vegetabl diastase, capable of liquifying 300 times its weigh of cooked starch in ten minutes. It is marketed b Parke, Davis & Company in tablet, capsule an liquid form. Samples are being offered by the man ufacturers.

SUMMERTIME IS DIONOL TIME

Someone coined the expression, "Summertime i suffertime," and this might be paraphrased to rea Summertime is **Dionol** time." The conditions presen during hot weather favor the production of, or ag gravate, local inflammations. The unfortuniate in dividual affected with an ulcer, or hemorrhoids, o whose skin chafes easily, who falls a ready victi to sunburn or windburn, or, in fact, suffers from local inflamation, needs Dionol. Because Dionol i what might be termed almost a specific for local in flammation. It contains no drugs. Its action is phy siological and is based upon certain well define sanitary laws which govern the production of loca inflammation. In result, the most convincing an most practical proof of such claims made for th product lies in the clinical test, and a post card t the **Dionol** Company, Detroit, Michigan, will bring supply of the product, together with literature, cas reports, etc.

DULCETS BENZYL STEARATE IN BRONCHIAL ASTHMA

It was Macht of Johns Hopkins Medical Schoo who was studying the so-called "minor" alkaloid of opium, when he found that the benzyl esters re laxed spasm of smooth muscle. Benzyl acetate wa too irritating for use and benzyl benzoate was se lected for extensive trial as an antispasmodic. I was administered in oil and in alcoholic solutions an elixirs because of its irritating quality and objec tionable taste and odor. Benzyl benzoate was use in over 150 cases of bronchial spasm, or asthma The cases treated were both adults and children many of long standing. Benzyl benzoate prove beneficial in about seventy-five per cent of cases A number did not react at all. Where the dyspne is due to causes other than bronchial spasm th benzyl benzoate can be of little use. Dulcets Benzy Stearate are chocolate squares, palatable as candy each square containing 15 grains benzyl stearate This product has the complete action of benzyl ben zoate, in addition to the advantage of being odor less and tasteless. It is made only by Eli Lilly and Company.

SPASMODIC SUMMER COMPLAINT

When intestinal troubles are so prevalent, accompanied by the usual manifestation, abdominal cramps etc., nothing seems to relieve this distressing condition so promptly as Hayden's Viburnum Compound, a true and safe anti-spasmodic. Dose: Mix two teaspoonfuls in seven of BOILING water, slightly sweetened, and drink as hot as possible. Repeat every half hour until relief is obtained. Be sure the genuine H. V. C. only is administered.

Tongaline acts on the nervous system of the secretory organs and on the glandular apparatus, both great and small. This action manifests itself in the kidneys, the liver, the intestines and the pores, exaggerating the functions of these organs. These conditions secure the attainment of the desired effect, which is to expel from the organism all those agents, the accumulation and retention of which in the blood, are the cause of rheumatism, neuralgia, influenza, grippe, gout, nervous headache, sciatica, lumbago, malaria, heavy colds and excess of uric acid.

AUG 17 1922
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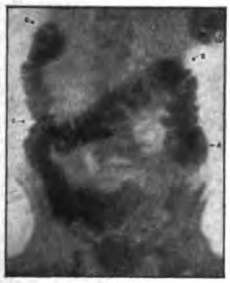
FORTY YEARS IN THE MISSOURI VALLEY

The Medical Herald

and Electro-Therapist

Incorporating

The Medical Fortnightly & Laboratory News
St. Louis Clinique, General Practitioner
and
The Kansas City Medical Index-Lancet



Marked Coloptosis

Acute Splenic Flexure—A, cecum; B, partly air-filled hepatic flexure; C, splenic flexure with left portion of transverse colon coming up and forming an acute angle with descending colon. From "Diseases of the Digestive Organs," by Chas. D. Aaron, Cc. D., M.D., F. A. C. B.

The Value of Lubrication in Coloptosis

A gastroenterologist of wide reputation calls attention to the efficacy of liquid petrolatum in ptosis of the intestines. He points out that it is not only a means of healing superficial lesions of the intestinal tract and softening the feces, but that it also inhibits bacterial growth.

Nujol
REG. U.S. PAT. OFF.

A Lubricant—not a laxative

Guaranteed by Nujol Laboratories, Standard Oil Co. (New Jersey)

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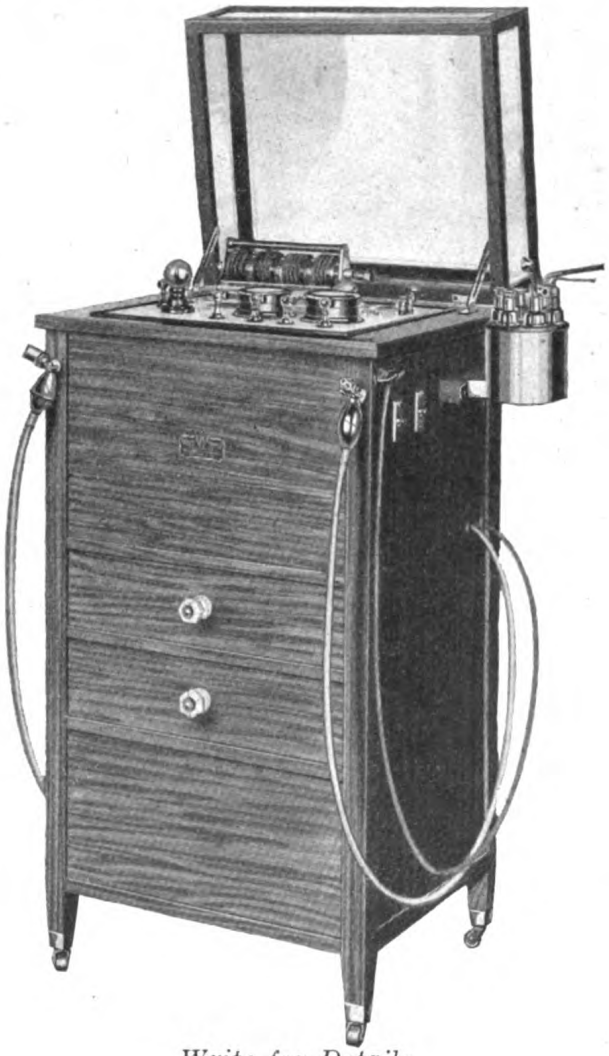
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Continuing the Medical Fortnightly and Laboratory News

The Medical Herald
and Electro-Therapist
Incorporating
The Kansas City Medical Index-Lancet
An Independent Monthly Magazine

l. XLI AUGUST, 1922 No. 8

)N-SURGICAL DRAINAGE OF THE BILIARY TRACT

JOHN M. MAYHEW, A. M., M. D., F. A. C. P.
ARTHUR L. SMITH, A. B. M.,D., M. Di.,
Lincoln, Nebraska.

History

In 1917 Meltzer[1] announced that a magne- ım sulphate solution injected into the duo- num without coming into contact with the stric mucosa, stimulated the flow of bile d he added this might be of some definite nical value. Lyon[2] put this suggestion in- practice and in 1919 made his first report the diagnosis and treatment of abnormal- es of the biliary system. His last reports[3] cluded the results in over two thousand ses.

Physiology of the Biliary Mechanism

Meltzer believes the sphincter of the com- on bile duct and the muscles of the gall- adder are innervated by inhibitory and otor fibers from the splanchnic and vagus rves, so when the sphincter of Oddi relaxes, e gall-bladder contracts. From the action this delicately balanced mechanism, he has omulgated the law of contrary innervation. urns[4] has shown that normally no bile ap- ars in the duodenum when the stomach is npty, but the entrance of food products from e stomach into the duodenum stimulates the echanism which causes the bile to flow from ıe common duct. Rost[5] has demonstrated, ter cholecystectomy, the escape of bile is ntinuous, whereas normally it is discharged ly intermittently.

Effect on Pressure in Ducts

Judd and Mann[6] have reported that the phincter of Oddi will withstand a pressure f only forty millimeters of water after the all-bladder is removed, when before the op- ration its normal resistance is from one hun- red to one hundred fifty millimeters of pres- ure. McWhoter[7] has shown that the injec- tion of twenty-five per cent magnesium sul- phate solution into the duodenum will reduce the resistance of the sphincter of Oddi fifty to one hundred millimeters of water pressure.

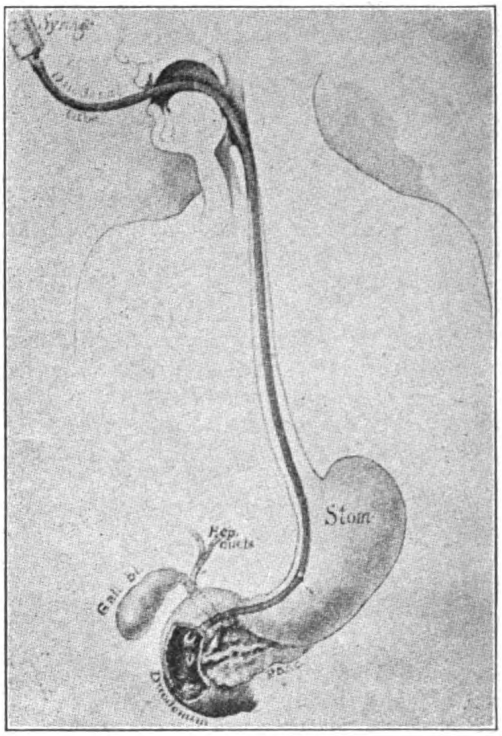


Fig. 1. Duodenal bulb in duodenum (after Smithies.)

Similarity of "B" Bile and Bile in the Gall Bladder

Whipple[8], bacteriologically has shown the similarity between the "B" bile (Lyon's nomenclature) and bile in the gall-bladder. He believes these to be the same. Sachs[9] reports two cases at the time of operation in which the gall-bladder contracted and "B" bile appeared thru the duodenal tube after the injection of magnesium sulphate solution into the duodenum.

Technique

The patient fasts for fourteen hours and presents himself at the office in the morning. He is placed in the sitting position and the

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duodenal tube with a Palefsksi tip is passed into the stomach. The stomach is lavaged and then a glass of water is swallowed. The patient lies on the right side with the left leg flexed on the abdomen. Each seven minutes thereafter the tube is swallowed once. When the siphoned secretions are alkaline or contain bile the tip is usually in the duodenum. In some cases it is necessary to press the tip into the pylorus, its course being observed by means of the fluoroscope. Next, seventy-five cubic centimeters of thirty per cent magnesium sulphate solution are injected into the duodenum. Sometimes this must be repeated, but in smaller amounts. In a few minutes the yellow bile usually drops from the tube. Later this changes to a darker and thicker fluid and finally a light yellow. To recover the bile aspiration at times is necessary. When this fails, the injection of air into the duodenum, by pushing the mucosa away from the tip openings, allows the bile to flow freely. We have recovered bile from every patient sometime during the treatment. "B" bile, however, has not appeared in some of those with gall-bladder infection. Lyon contends, empirically, the first bile comes from the common duct, the second from the gall-bladder, and the third directly from the hepatic ducts and liver. Up to the present this has not been verified nor disproved, although Griffith, Crohn and his co-workers,[10] and Dunn and Connell[11] conclude with insufficient evidence, however, that his contentions are not true. An attempt has been made to discredit this work because the "B" bile can be recovered from patients in whom the gall-bladder has been removed. However, it has been shown by the work of Judd and Mann, Eisendrath and Dunlavy,[12] Oddi,[13] De Voogt,[14] Haberer and Clairmont[15] that after the gall-bladder is extirpated, the hepatic and common ducts dilate and take on the function of the removed organ. The concentrating of the bile begins shortly after it leaves the liver and this phenomenon continues until it is emptied into the duodenum.

Method of Making Diagnosis

Lyon has based his diagnosis of abnormalities of different parts of the biliary tract upon the findings in the "A," "B" and "C" bile. He first washes the mouth and stomach with an oxidizing agent and hopes to make these areas bacteria free. From our knowledge of bacteriology we do not believe this is possible. After culturing the bile recovered from one hundred cases and finding organisms present in each, we lay little stress upon the presence of bacteria. The finding of streptococci is our only exception to the foregoing statement. If bacteria and inflammatory products

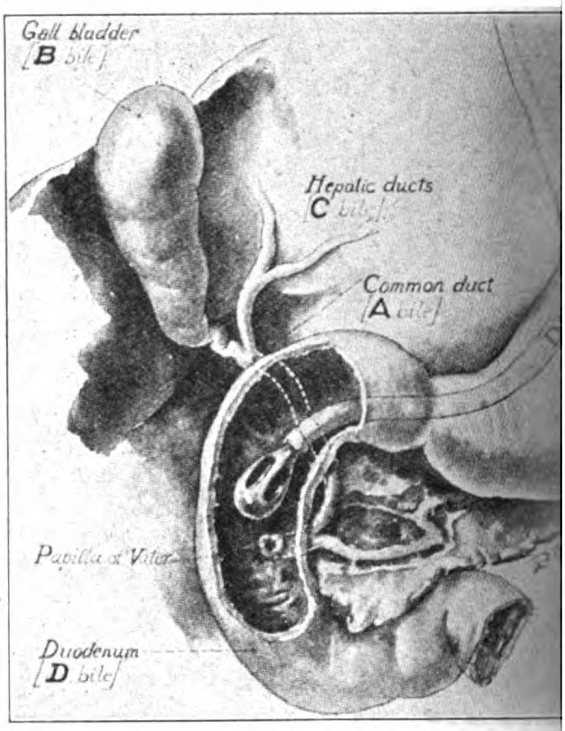


Fig. 2. Showing areas from which bile fractions secured. A. common bile duct portion. B. gall bla portion. C. portion from hepatic ducts and branc D. duodenal content. (After Smithies.)

are present in any of the divided portions the recovered bile, Lyon believes the a from which this supposedly is derived is fected. We know that if the duodenal c tents are normal and the bile contains epithelial cells and organisms, there must an infection somewhere in the biliary tr At present we do not believe we are justi in saying these products are excreted or ex iated by any certain area in this system. H ever, by the use of other means in conjunc with this method, we can arrive at a far m accurate diagnosis than formerly.

Number of Cases and Diagnosis

This report covers the results in 921 bil drainages from 152 patients during the las months. First the patient was completely amined and all available diagnostic meth were used before a diagnosis was made:

Chronic cholecystitis	9
Acute cholecystitis	
Cholelithiasis with infection	1
Hepathitis, acute and chronic	
Impaired drainage after operation	3

Treatment and Results

Before draining the biliary tract all o infections were removed. The patient then drained until the abnormal prod were absent from the bile.

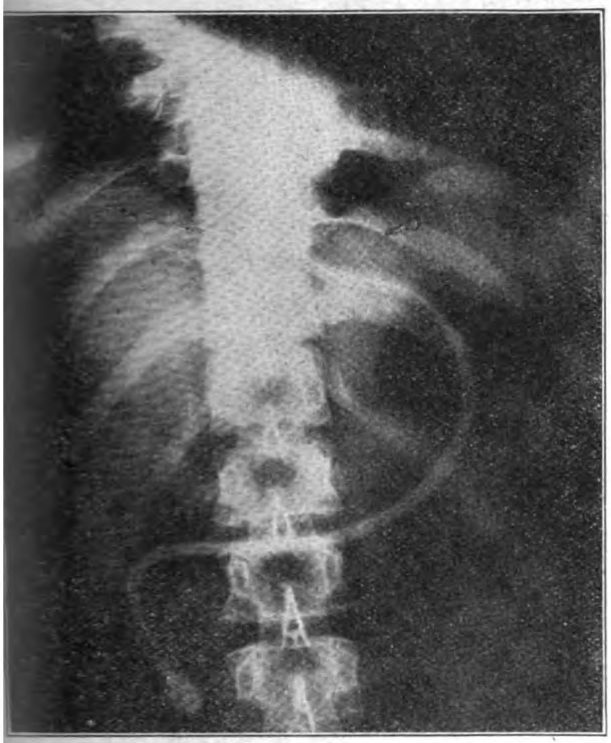


Fig. 3. Shows bulb in duodenum and the normal duodenal curve.

Chronic cholecystitis	91
No improvement	19
Completely satisfactory	72
Acute cholecystitis	4
Reduced time of infection	4
Cholelithiasis	11
Operation and drainage after, satisfactory	5
No attacks after duodenal drainage	4
Attacks same after duodenal drainage	2
Hepatitis	8
Satisfactory	6
No improvement	2
Impaired drainage after operation	38
Satisfactory	35
No improvement	3

Favorable results in pre-operative and post-operative duodenal biliary drainage and by this method without operation in biliary disease are reported by Lucas,[16] Sachs, Neuhoff,[17] Niles and Kraft,[18] Friedenwald and Morrison,[19] Smithies,[20] Mann,[21] and Levin.[22]

Case Reports

I. Mrs. S. 51 years.

Three years ago she had a cholecystectomy performed for a typical clinical chronic cholecystitis with acute exacerbations. For six months after the operation none of her former symptoms were present. After this period they gradually returned and increased in intensity until she declared she suffered more excruciating pain than before the operation. After one unsuccessful attempt to pass the duodenal tube, she was drained eight times. The largest amount of the three biles being 82 cubic centimeters. She improved rapidly, and at present, 10 months later, declares none of her former symptoms have returned.

II. Mrs. W. 29 years.

After one year of typical symptoms of cholelithiasis, her gall-bladder containing a large number of gall stones was removed two years ago. She remained free from symptoms for about one year, when a few days after a normal confinement, severe pains in the upper right abdomen and jaundice appeared. Biliary duodenal drainage was started and thick black bile containing pus cells, blood and epithelial cells was recovered. She was drained four times and has remained normal during the last eight months. (May 9, 1922).

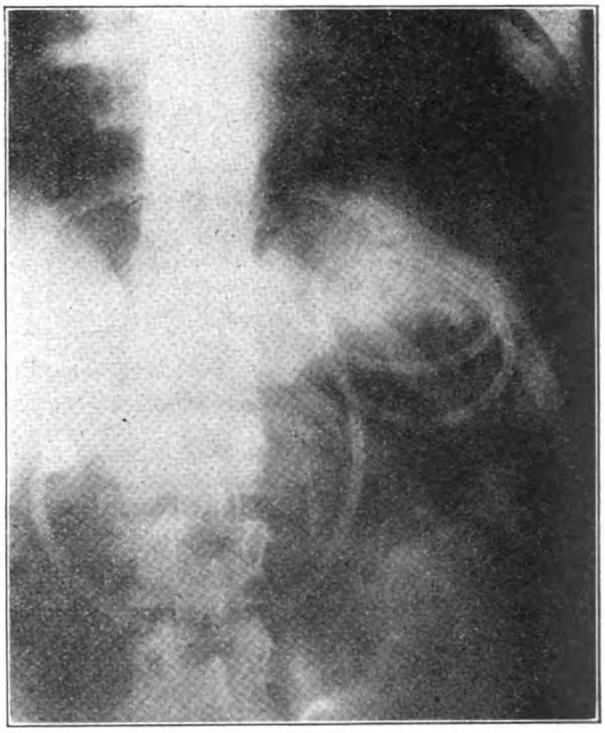


Fig. 4. Shows duodenal tube curled up in the stomach.

III. Mrs. S. 50 years.

One year ago a cholecystostomy was done for a chronic cholecystitis and ptosis of the gall-bladder. Her symptoms were very much aggravated. All her symptoms have disappeared under the medical method of treatment.

IV. Miss C. 26 years.

Following attacks of cholecystitis for two years, a cholecystostomy was performed five years ago. About two months after her operation the symptoms returned and have con-

tinued intermittently until the present time. At first no bile was recovered through the duodenal tube, but after the hypodermic injection of atropin, good drainage of the three biles followed. All her symptoms have been relieved and have not returned during the past eight months.

Remarks

Any method must stand or fall on its clinical results. Based upon our observations and the statements of patients, we believe this method is of great clinical value. In comparison with operations for cholecystitis, cholangitis and choledochitis, we believe this medical method gives better results. We know the instillation of magnesium sulphate into the duodenum lowers the pressure in the common bile duct and causes a flow of bile into the duodenum. The gall-bladder has been seen to contract after this instillation. Bacteriologically, the "B" bile and the bile in the gall-bladder have been shown to be similar. We believe, therefore, this method drains the gall-bladder and ducts in the same manner as an operation, without the time in the hospital and the sequelae following surgery upon this tract.

Conclusions

As a diagnostic procedure medical biliary drainage has many shortcomings, but in conjunction with methods now in use it has made a distinct advance in our diagnostic knowledge of biliary disease.

It has made drainage of the biliary system a medical problem in many abnormalities of this tract.

It has reduced the necessary number of surgical attacks upon this region and has thus prevented the many sequelae following.

In those cases in which surgery is indicated, it should be used before and after the operation.

Based upon the statement of patients and upon clinical observations in many bile tract abnormalities, the results are more favorable by the medical method than by known surgical procedures.

The technique is not difficult and any well-trained practitioner can carry it out in his office. Finally, we believe if this method is given a thorough trial it will be found, as with us, to be a distinct advance in the diagnosis and treatment of disease of the biliary tract.

904 Security Mutual Building.

ABSTRACT OF DISCUSSION

Dr. Sachs.—In discussing drainage we have to use a conservative view. Personally I have not obtained the results that some have. I do not think a gall bladder contracts. Yet it contains circular muscles, which were put there for some purpose. The gall bladder empties only partially and that by spurts. The help of the procedure is (1) to diagnose malignancy, (2) patency of the ducts, (3) helps sometimes in infections, (4) and in Palefski visualization; (5) diagnosis of typhoid carriers, (6) clearing up catarrhal jaundice. I am not hyper-enthusiastic about this thing, but it does help in combined work with surgery. But do not depend on laboratory methods; our clinical judgment is the guide.

Dr. Clendenning.—This is rather new and startling. At what stage are you? (1) of skepticism? (2) of experimentation, (3) of enthusiasm, (4) or of primary doubt. I am now at the stage of reasonable doubt and I have used this method for four years. I say you can get the tube into the duodenum and you can see bile flow in spurts. But one doctor reports 423 cases to make a try—which won't get you very far. Its uses in diagnosis are extremely doubtful. I had rather have the history for diagnostic purposes. In obstruction of the duct it does not help. In catarrhal jaundice you can do a great deal of good with it—better than all other means. In cholecystitis, drainage and a vaccine made from the bile may be of benefit. In infection of the gall bladder wall there is no benefit. I have treated two cases of cancer of the liver this way and I did them no good.

Dr. Smith (Closing)—I don't think this is a cure-all. As a diagnostic aid we do not know what it will do. We do know it will drain the ducts, and since the gall bladder fills only by back pressure of the common duct, we relieve the gall bladder by removing the pressure in the common duct. The gall bladder does contract, many have seen it. When the drainage helps. I do not say this is a diagnostic method. But when we syphon the bile off and get pus cells, etc., they must come from the bile system. I am not putting this system up against case history. The X-ray shows in about 50 per cent of cases I am skeptical about diagnosis, but not treatment. Results show an absence of symptoms outside of the psycho-therapy in these cases.

Bibliography

1. Meltzer: Am. J. M. Sc. 153:496, 1917.
2. Lyon: J. A. M. A. 73:980, 1919.
3. Lyon: J. A. M. A. 74:246, 1920.
   Lyon: N. Y. M. J. 112:23, 1920.
   Lyon: N. Y. M. J. 112:56, 1920.
   Lyon: Am. J. M. Sc. 160:515, 1920.
   Lyon: Med. Clin. N. America, March, 1921.
4. Burns: Quoted by Meltzer.
5. Rost: Quoted by Meltzer.
6. Judd and Mann: Surg. Gynec. and Obst. 24:437, 1917.
7. McWhorter, Surg. Gynec. and Obst. 32:124, 1921.
8. Whipple: Annals of Surgery, 73:556, -1921.
9. Sachs: Nebr. Med. J. Aug. 1921.
10. Crolin, Reiss and Radin: J. A. M. A. 76:1567, 1921.
11. Dunn and Connell: J. A. M. A. 77:1093, 1921.
12. Eisendrath and Dunlavy: Surg. Gynec. and Obst. 26:110, 1918.
13. Oddi: Arch. Ital. de Biol. 8:317, 1887.
14. DeVoogt: Nederl. Tydschr. v Geneesk. 43:236, 1898.
15. Haberer and Clairmont: Arch. f. klin. Chir. 73:679, 1904.
16. Lucas: Ky. Med. J. July, 1921.
17. Neuhoff: J. Mo. Med. Assoc., May, 1921.
18. Niles and Kraft: J. S. Carolina, M. A. March, 1921.
19. Friedenwald and Morrison: N. Y. M. J. Sept. 7, 1921.
20. Smithies: Ill. M. J., April, 1921.
21. Mann: New Orleans M. and S. J., Jan., 1921.
22. Levin: New Orleans M. and S. J., Jan., 1921.

¶ Compulsory health insurance will never make much headway in the land of the free and the home of the brave.

CARCINOMA OF THE BREAST WITH A REPORT OF A RARE CASE OF MASTITIS CARCINOSA

MICHAEL J. FORD, M. D., Omaha, Neb.

THERE is nothing new that I can add to the diagnosis and treatment of carcinoma, but as the title of my paper indicates, I have had the opportunity of observing and operating on one of the rarest of forms of carcinoma of the female breast.

Deaver and McFarland, in their book on "The Breast, Its Anomalies, Its Diseases and Their Treatment," describes a similar case to the one I am going to report. I have written several letters to men of large clinical experience, asking them for a report of any such case that might have come under their observation.

Dr. Joseph Colt Bloodgood writes: "I have your letter of September 10th. I can at present add nothing to this subject, as it is now under observation in my laboratory. If you will send me your case with the tissue, and your paper, I will try to give you all my data before your paper is published. There is one type of cancer in mastitis here. There is a mastitis during lactation and a residual lump developes, which later changes to cancer—see my Reprint, fig. 308, p. 567. And again, in some cases of carcinoma, the reaction of the breast to the infiltrating process, gives a picture of mastitis, but in my opinion, the whole subject is still obscure, and there is nothing definite, except the one I named in Binnie's Surgery.

Etiology:

Trauma is a factor in cysts of the breast and sarcoma, but less frequently causes Carcinoma. Trauma may excite the growth of a pre-existing tumor, and the subsequent growth may be either benign or malignant. The history of Trauma is of no help in differential diagnosis.

Pregnancy:

If a nodule or lump is found in the breast of a pregnant woman over 25, it should be explored at once because during pregnancy and lactation cancer disseminates very rapidly. If a woman has had a lump in her breast before becoming pregnant, immediate operation is not so essential, but it is safer to remove the lump before full term, preferably between the third and fifth months.

Family History:

Family history of cancer should have no influence on your conclusions. The first symptom of the onset of cancer of the breast is the finding of a tumor. If more attention were paid to this finding, more lives would be saved. Lives have been lost by the patient, and oftentimes by the physician, waiting for pain, retracted nipple and the involvement of the auxillary glands.

Bloodgood says: "His experience shows that if there is no other sign or symptom except the discharge of blood from the nipple, there is no more indication for operation than the presence of pain," but he hopes some day to be able to recognize the few cases in which discharge from the nipple can be properly interpreted as an indication for the removal of the breast.

Retraction of the nipple is usually the warning of malignancy of the breast. It may rarely be present in benign conditions. If one can establish that the retraction of the nipple is of recent origin, and is not due to previous mastitis, or is not congenital, then it should be looked upon as malignant, and the radical operation for cancer of the breast be done.

Bloodgood says: "Precious time has been lost waiting for the appearance of the tumor. As a rule, in these cases, the cancer is in the nipple zone and is difficult to recognize by palpation, or the women may have large fat breasts and the little scirrhus are too deeply situated to be recognized. Pain and discharge from the nipple are messages but require no answer. Retraction of the nipple is a message that requires immediate attention."

Subcutaneous Fat:

In the normal breast, the nipple, skin and aereola are freely movable over the deeper structures, and there is always a zone of subcutaneous fat between the skin and the breast, and when one can palpate a small tumor between the skin and the breast, and there is an absence of subcutaneous fat, it must be looked upon as malignant. Dimpling and fixation of the skin of the breast are almost always a sign of malignancy. Redness and definite adhesions of the skin to the tumor are almost always a sign of cancer. Sinus formation is very unusual in malignant tumors of the breast. Oedema of the skin to the tumor are almost always a sign of cancer. Sinus formation is very unusual in is usually a sign of cancer which is hopeless.

Carcinoma Mastitoides or Mastitis Carcinosa, (according to Deaver and McFarland) usually manifests itself as a general painful and rapid enlargement of the entire breast or of both breasts, without the presence of any previously noted mass or area of induration. The gland becomes reddened, hot, oedematous, and may present a sense of fluctuation. Appearing, as it most frequently does, shortly after parturition. The similarity to acute mastitis is marked and many patients have been persistently treated on this basis. The skin shortly becomes infiltrated, brawny, and small

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areas of necrosis may appear. The nipples may or may not be retracted and the axillary and supraclavicular glands are early enlarged in the majority of instances. The skin of the thorax immediately surrounding the breast may become indurated and reddened. There is usually some elevation of temperature and, locally, the part may be hot.

A point of interest is that small abscesses are occasionally noted and in no case did the breast tissue break down enmasse.

Cachexia is profound and metastasis rapid, death transpiring from toxaemia.

On incising the tumor, there will be found fairly firm tissue, which may or may not present small abscess cavities. The substance of the growth is usually firm and fibrous, of a purplish red color, and frequently exhibits small, isolated areas of hemorrhage. There is usually scattered throughout the gland, small necrotic spots, sometimes abscesses of considerable size. The contiguous skin is markedly indurated and oedematous.

Miss M. age 52, single, was referred to me for operation on May 22, 1920. Family history was negative; patient had had the usual diseases of childhood, menstruated at 11, was irregular for three or four years, when she had pneumonia following which she did not menstruate for a year. When it did return, it was the regular twenty-eight day type, that was accompanied with a great deal of pain, until the age of 25, when her periods were normal up until four years ago. July 1, 1916, she was notified of her brother's death, which was quite a shock to her. She was flowing at the time and it continued until the middle of September. After this the flow was normal until January, 1917, when she had a flooding spell for ten days, and it was necessary to inject serum to control it. She was then normal until March, 1919, and had not menstruated since. She did not have any other symptoms of the menapause until one year later. April, 1919, she first noticed a lump in her breast the size of a filbert, which continued to grow. There was a burning sensation in it up until December, when this changed to a dull pain. Patient did not consult a doctor until January, 1920. The reason she gave for not going sooner was that she feared an operation would be advised. She was treated with Violet Ray, but the condition continued to grow worse. I saw her for the first time at the Ford Hospital May 22, 1920. I found a middle aged, well nourished woman with the left breast red, swollen and tender, with what appeared to be carcinomatous nodules about three inches below the nipple, and also glandular involvement. I informed both her and the physician that in my judgment the time for operation was past, but they both insisted and I consented. I did the radical operation for carcinoma of the breast. The red inflammatory condition of the breast I could not account for until I had laid it open, showing a cavity which contained about six ounces of pus. I advised that the specimen and gland be preserved for pathological and microscopical findings. The breast was not taken care of and spoiled. However, I got the following report from Dr. Wohl on the glands removed:

"The examination of the gland of your patient Miss M., showed lymphoid structure replaced by epithelial cells. The cells aggregated in nests. There is also a proliferation of the connective tissue trabeculae. Here and there one notices polymorpho nuclear leucocytes and broken down lymphocytes."

DIAGNOSIS: Metastatic carcinoma (infected).

She was put on intensive X-Ray treatment: the wound healed by primary union and she left the Ford Hospital in apparent good condition, but judging from the history of such cases that had gone before, she was informed that in all probability there would be a recurrence.

She then left my hands and the following is the report of her condition as given by Dr. McCrann, Jr.

"After taking several series of X-Ray treatments, lasting about four months after the operation, she discontinued all treatment along this line, and in less than two months from the time they were discontinued a mass appeared in the left breast and an evidence of a beginning nodule in the right breast. Dr. McCrann, having her continually under observation, advised an immediate secondary operation, which was performed within two weeks of the beginning of the appearance of the secondary mass in the left breast and the nodule in the right breast.

She was operated upon in January, 1921, and the scar tissue following the first operation in the left breast was removed and a clean dissection made of all glands in the axilla and as high up as possible. All glands and glandular structure in the surgical field were removed. A drainage was left in as a part of the glands had broken down. The right breast was amputated and it was found that there was a mass of enlarged glands which was not palpable before the operation. The same careful dissection was carried out on this side by the surgeon in charge, and as there was no evidence of suppuration of any of the glands the wound was closed without drainage.

The right side healed by primary intention, but the left side continued to break down, the carcinomatous condition spreading, involving all the surrounding structures, including the left arm and causing complete paralysis of the same.

Massive doses of X-Ray treatments followed the secondary operation, but produced no apparent effect, other than a marked erethema of the skin, which gave the patient considerable pain. She gradually grew worse and passed away four months following the second operation, and one year after the amputation of the left breast by myself.

Pathological Findings:

The specimen removed at the second operation was identical with those of the first.

LOCAL ANESTHESIA IN GALL BLADDER SURGERY

CARYL POTTER, M. D., St. Joseph, Missouri.

IN our work we have limited local anesthesia in gall bladder surgery to that class of cases where general anesthesia is contra-indicated because of its effect on the immediate outcome. It is not the anesthetic of choice, but has a wide field of usefulness which makes it invaluable in selected cases. Especially suitable for its use are those with, (1) pulmonary tuberculosis, (2) acute or chronic bronchitis, (3) cardiac or renal disease separate or combined, especially in individuals past the meridian of life with low phthalien out-put, myocardial insufficiency or partial cardiac decompensation.

Pulmonary tuberculosis, either acute or chronic is always aggravated by general anesthesia, more so by ether and gas than chloroform, but the low blood pressure and poor tone of the cardio-vascular system doesn't lend much enthusiasm to the use of chloroform. As the contemporaneous existence of pulmonary tuberculosis and disease of the gall bladder in the same individual is rare, the necessity for deciding the type of anesthetic indicated seldom arises. However, it may easily occur. In my earlier surgery, I had occasionally seen and had general anesthetics given to cases complicated with pulmonary tuberculosis and the results were anything but gratifying. Ether always aggravates an acute or subacute process and very often lights up a latent focus. I have often observed patients with quiescent forms of the disease transformed into the most aggravated types, some of which were long in improving, others terminating fatally with general tubercular pneumonia. I particularly remember one woman who had had an acute attack of appendicitis which had become subacute after she had refused operation in an acute stage because of a suspected tuberculosis about seven years previous. She recovered to a certain extent from the attack, but was unable to leave her couch because of acute pain and tenderness in the region of the appendix. My examination revealed a sub-acute appendicitis with a suspicion of cholecystitis. Bearing her previous history in mind and the possibility of a costodiaphrgmatic pleurisy, she was kept in bed several days under the care of a competent internist who reported daily negative chest and sputum findings. Although she had the facies and ear marks of tuberculosis, he reported nothing to ratify our suspicions. She began to develop a new attack which forced an operation. Under ether anesthesia an acutely inflamed appendix was removed and the gall bladder explored with negative findings. On the morning after the operation the cough became productive and large numbers of tubercle bacilli were reported in the sputum then and daily afterwards. Her acute pulmonary symptoms never subsided, she went from bad to worse and died in three months after a typical course of acute galloping tuberculosis. Had she been operated upon under local anesthesia, I am sure the pulmonary focus would have remained quiescent and equally certain that the ether was the direct irritating factor. Therefore, in any suspected cases where local anesthesia can be used, it should be chosen.

The same holds true of acute or chronic bronchitis, for I have often seen either type aggravated and bronchial or lobar ether pneumonia develop notwithstanding reports to the contrary. Chloroform, chosen by some for such types is likewise in my own experience contra-indicated. The heart muscle of bronchitic and tubercular types is none too strong to which the accepted higher mortality of chloroform adds an additional risk which makes the outlook none too promising or encouraging. Why, then, take the chance if under local anesthesia satisfactory work can be done?

The above sub-divisions, however, constitute only the much smaller percentage of cases in which local anesthesia is the method of choice. Opinions may differ somewhat regarding them, but in the class now to be considered, local anesthesia has been so supremely satisfactory and the mortality reduced to such a surprisingly low figure in our cases that we no longer even consider any other method.

I am speaking of the patients past middle age suffering from asthma, angina pectoris, myocardial degeneration, renal insufficiency, uncompensated heart lesions of any classification who may or may not have had gall bladder symptoms for years, but suddenly develop acute gall bladder symptoms which necessitate surgical intervention. The majority of these patients, which were formerly the worst types of surgical risks, have been brought within sur-

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limits by the use of local anesthesia. In so encouraging have been our results that not hesitate to recommend relief by surwhere formerly we approached them with fears or side-stepped them altogether. ecret of success is local anesthesia plus enough surgery to relieve symptoms. Radisurgery under general anesthesia anticifailure. It is always easy to recommend cystestectomy or any necessary operation good surgical risk. But cholecystectomy extensive exploration in the region of the ducts and upper right quadrant is difficult local anesthesia. The cutting does not pain, but the extreme discomfort caused traction on the gall bladder and palpation around the ducts with pulling on the mesenteries cannot be entirely eliminated by local anesthesia. The patients have averaged between 60 and 85 years of age have had low phthalein output possibly with symptoms of uremia or hyper-tension with general arterio-sclerosis, angina pectoris, extra systoles or other indications of myocardial changes such as hypertrophy, inequality between the apex beat and pulse at the wrists or an occasional history of decompensation. All of these symptoms do not usually occur in one individual, but in varying grades of severity either singly or combined. They have had a gall bladder disease also which demanded surgical intervention, i. e., empyema, stone in the cystic duct, a gall bladder containing a large number of small stones precipitating one attack after another, stone in the common duct, or large calculi in the bladder causing continual or intermittent, unbearable pain with chronic digestive disturbances. Many writers, particularly Bohan, have recently called attention to gall stones or disease of the gall bladder as a probable exciting factor in angina pectoris and have cited cases to show the occasional relief of anginal symptoms by the removal of gall stones or a diseased gall bladder infection, the belief being that stimulus for the attack of angina travels through the sympathetic to the phrenic nerve then upwards connecting with the sensory nerves to the left arm. If it has been reasonably suspected that a patient with angina has a surgical gall bladder it would certainly be folly to advise a general anesthetic if a less dangerous one in the form of local anesthesia could be substituted. Very often old people with moderately advanced or advanced cardio-renal disease have an active or a latent bronchitis or if allowed to be in bed for too long a period develop pneumonia. Chloroform being a cardiac depressant and ether a renal and bronchial irritant are contra-indicated.

Many such cases, formerly called poor risks have been allowed to die from toxemia, general infection or ruptured gall bladder, or become bed ridden or chronic dyspeptics; othe have been operated upon under general anesthesia with fatal results. If local anesthesia, sometimes supplemented with gas oxygen, will be used for all of these cases, I am sure the results will compare most favorably with gall bladder operations in otherwise strong, vigorous individuals provided the surgeon is content with conservatism, does just enough to relieve symptoms and doesn't attempt a large amount of radical work. The writer has been able to confirm in many cases the findings of Lennander and Braun that the fundus of the gall bladder is insensitive to pressure, clamping or cutting, so long as traction is avoided; that any probing, manipulation of ducts or pulling is always painful, as is the ligation of the cystic duct and artery. This explains why local anesthesia is used only where general anesthesia is contraindicated. Even when combined with gas-oxygen, relaxation is not complete, deep reflexes are more active, thorough exploration more difficult and radical, deep gall bladder surgery almost impossible. I care not how carefully the tissues are handled by the surgeon, he will get reflexes from deep manipulation and traction in the epigastrium and right hypochondriac regions that he will get no where else in the body. Local anesthesia in these cases is also safer because the very realization that the patient is a poor risk and the reflex of ducts and mesenteries responsive to traction and rough handling compels conservatism in the operation and makes radical surgery next to impossible. The marked reaction of an old sensitive patient to pain gives the surgeon ample opportunity to realize that if for one instant he abandons gentle manipulation, he is reminded of his crudeness by the patient. From the standpoint of general surgery all surgeons should be compelled to do a certain amount of major work under local anesthesia for it teaches gentleness and respect for tissue which is the chief factor in the success of any operation.

Having decided that the subject is unfitte for general anesthesia, the bowels are move by soap suds enema and gr. ¼ and morp sulph, gr. 1/150 atropine sulph, given one hou before the operation. The solution until late used for injection was one per cent apothesi in normal salt or Ringer's solution containi ten minims of 1 to 1000 adrenalin chloride the ounce of solution. I am now using ½ p cent novocain exclusively The line of sk with a small bore, flexible needle which is i serted just underneath the epidermis. Whe are raised by successive injections and the i jection is carried about 5 cm. beyond the li its decided upon as the terminals for the en of the incision. After waiting at least fi minutes (and this is very imp line

ncision is made which just divides the epidermis not deep enough to cause capillary hemorhage into the field. This serves as a landnark for all future injections and infiltrations. Selecting the mid-point in this incision successive superficial injections are made into the surrounding tissues just as spokes radiate from he hub of a wheel withdrawing the needle just nside, but not out of the site of introduction or each injection. After waiting another five ninutes the incision is carried down to, but not nto the rectus sheath. The latter is injected in the same manner as the skin. Then a larger bore needle is selected and pushed through the rectus sheath into the muscle which is thoroughly infiltrated with the solution. After waiting about three minutes the anterior sheath and rectus muscle fibres are divided. The smaller needle is now substituted for the larger bore and the posterior fascial sheath and peritoneum are injected and divided. This is done most carefully as it is very senstitive and requires complete anesthesia if straining and muscle spasm are to be avoided. The peritoneum is then divided. The operation is continued from the left side of the table because the intra-abdominal work can be better done from that position. Then slipping the index and middle finger of the left hand to either side of the gall bladder as far down as possible the contents are milked toward the fundus using the thumb to palpate for stone in the gall bladder and cystic duct. The index and middle fingers are then introduced into the foramen of Winslow and the thumb and index finger palpate for stone. If a stone is found impacted in the cystic duct an attempt is made to milk it into the gall bladder. Failing this a second attempt is later made to dislodge it after opening the bladder. If no stone is found in the ducts the index and middle fingers are again placed to each side of the gall bladder and the contents milked to the fundus using enough pressure to prevent any stone slipping back toward the ducts. When sufficient distension of the fundus has been obtained a trocar is plunged through it and the fluid contents emptied. The trocar is then withdrawn and one edge of the opening grasped with an Allis intestinal forcep, the opening being enlarged by a single cut of the scissors. A scoop is introduced and stones if present removed. Otherwise the gall bladder is drained in the usual way and the incision closed.

During the whole procedure, no retractors, hemostats, forceps or pads of any kind are used if they can possibly be avoided. It is usually unnecessary to clamp any bleeders. The peritoneum can be opened without grasping it. All cutting is done with a very sharp knife.

Very often the only forceps applied in the entire operation is the small Allis used to grasp the opening made by the trocar. In closing the peritoneum it is usually unnecessary to grasp it with forceps, a small wet pad or the left hand being sufficient to keep the intestine out of the field. Adhesions are rarely disturbed further than to separate enough of them to expose the fundus for the insertion of tube or trocar or an exploration of the ducts. If some deep traction is advisable the induction of gas oxygen analgesia will prove very valuable in overcoming the patient's discomfort and facilitating the work of the operation. No more is done than is necessary to relieve acute or chronic symptoms. These patients usually haven't long to live, but they do wish to live in comparative comfort and cholecystomy is sufficient to insure this. Attempts at cholecystecotomy and other radical procedures under general anesthesia will always be attended by a high mortality which is practically negligible since we have been using the above procedure.

THE CONTROL OF GONORRHOEA IN WOMEN

By PALMER FINDLEY, M. D., F. A. C. S.,
Omaha, Nebraska.

THE control of gonorrhoea in women is inevitably linked with the control of gonorrhoea in men. Whatever measures are adopted for the one must likewise be adopted for the other sex. It is, therefore, fitting that in this symposium we should consider the means of control of gonorrhoea in the two sexes.

We are all informed of the magnificent work done by our federal and local authorities during the late war and it is not too much to say that more progress was made in the way of educating the public and in the actual control of venereal disease in the years of 1914-1918 than had been accomplished in all the centuries preceding. But we must remember that the work was forced upon our government as a war necessity and, as with all matters pertaining to war, it was pushed with a vigor and a relentlessness that would not and perhaps should not be tolerated in times of peace. That which is possible in war may be impossible in peace and, morevoer, that which may have been permissible in times of war because of being considered essential to the winning of the war in times of peace be rightly considered an infringement upon the rights of citizenship.

In this connection I recall to your minds the detention camps for women afflicited with

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venereal disease that were established wherever soldiers were encamped. One of these was under my own personal direction and I have the best of reasons for remembering my experiences in this work. In the year of my stewardship about three hundred women were detained behind bars. For every woman so detained there were doubtless a score or more at large who conducted themselves more circumspectly and with less danger to the community out of fear of detention. The work was of inestimable value to the boys in training as evidenced by the commanding officer of Fort Omaha who made the assertion that within three months of the opening of the Detention Home the percentage of venereal disease in Fort Omaha was reduced to less than one percent of what it had been prior to the establishment of the Home.

Behind the bars of the Home, but it was in reality a jail, the work proceeded with a scientific exactness and brought results in the treatment of venereal disease such as I have not seen equaled in any gynecologic clinic. We had every facility at hand to make our work effective; our equipment was complete, our workers experienced and skilled and our control over our patients was absolute. We checked up our work daily by smears and Wassermann tests and our patients remained under our control until pronounced "cured." Furthermore, they were not released without parole which compelled them to return for inspection one or more times a week. And so, I repeat, conditions were such that we got results; and we got results not only because we had a favorable environment, skilled attendants and an effective laboratory but perhaps more because we were permitted to pursue this work unhampered within the walls, because we had back of us a martial law which for the time transcended all civil laws and against which all the powers of Hell battled in vain. Yes, there were many embarrassments but the work went on. The rights and privileges of commercialized vice, as the exponents were want to consider them, were being infringed upon and they fought us and fought us bitterly. Girls were repeatedly taken into court on writ of habeas corpus but the judges of our civil courts invariably ruled that the government had taken the position that the work of the Detention Home was essential to the winning of the war and they would in no way interfere. If the laboratory findings revealed a positive Wassermann or gonococci were found in the smears the records were never questioned by the court and the writ was denied and the girl returned to the Detention Home for such time as would be required to effect a cure. The subsidized press did all in its power to embarrass the work and it was not always possible to get justice in the police courts in the commitment of the cases. Then, too, there was the none too friendly police force. But with all these embarrassments we had on our side a sympathetic public mind, a friendly press in part, a united judiciary, a stalwart police commissioner and chief of police and above all, a determined and invincible Federal Government and we could not fail—we did not fail.

Following are the points of special interest gained in our observations in the management of these cases in the Detention Home:

1. More than half the cases were drug addicts and all were social derelicts. As a moral problem the work was most discouraging.

2. It is doubtful if the public is as yet ready for this reform movement. Public sentiment is as yet not crystallized, but much has been accomplished in educating the public and there is no doubt that the Public Health Service will perform an inestimable service in continuing the propaganda that has been so effectively pursued in the last year.

3. In a total of 275 cases admitted to the institution all but eight were gonorrheic, 70 per cent were also syphilitic though only one in ten showed any clinical evidence of syphilis.

4. The complement fixation test for gonorrhea was of no practical value.

5. A single negative smear has no significance. In only 50 per cent of the cases, which ultimately revealed the gonococcus, was the organism found in the first examination and in isolated cases the gonococcus was not revealed until the eighth, tenth and in one instance the fifteenth successive daily examination.

6. We were impressed with the low percentage of tubal infections in our chronic cases. In only two per cent did the tubes reveal any evidence of infection in the clinical examinations.

7. Gas anesthesia, permitting the cervix to be dilated and the endometrium to be swabbed with formalin and iodine solutions shortened the period of detention about 50 per cent. The average period of detention had been ten weeks but with the aid of gas anesthesia we shortened the period of detention from four to six weeks.

When the armistice was declared the military said in effect:

"Now we are no longer back of you—go on with your work because our boys are coming back and there will be much idle time and little control over them; you will have our best wishes in the work but more than that, we cannot give you." That settled it. The work of the Detention Home in Omaha has been continued to the present time but in a perfunctory way. In many places throughout the country they are closed. Armistice Day brought joy to the hearts of a war sick world and freedom in large measure to the underworld for the under-

world were no longer restrained by the Federal Government and they had too many friends among the civil authorities to give them reason or fear from that quarter. And so they openly defied the local authorities and with the result that the efficiency of the work of the Home was seriously affected.

But I am convinced that what was accomplished while the war was in progress is not wholly lost. If nothing remains but a more enlightened public mind and consciousness and conviction that much was done to safeguard our men in service we should say that our work was well worth while.

But what of the subject in hand; that of control of gonorrhoea in women as applied to civil life? It is manifestly impractical to consider the exercise of such arbitrary control as was exercised during the war. I heartily approve of such regulatory laws as are on our statute books in respect to the control of prostitution and I would strongly advocate the passage and enforcement of a law that would provide for a health certificate to accompany the marriage certificate but beyond this, it is questionable to my mind if there is much encouragement in legislation and law enforcement in the control of venereal disease.

Let us provide free day and night dispensaries, let us open our hospitals for the treatment of venereal diseases and in every possible manner let us wage a campaign of education that will find its way in the home, the school, the press, the pulpit and the workshop much as is now being so effectively done by the American Society for the Control of Cancer. Before the war there was a "conspiracy of silence" in matters pertaining to venereal disease but this was largely dispelled by the activities of our Public Health Service as the war progressed and the way is now clear to wage a campaign of education through the medium of our local, state and national Health Bureau. What is needed is less legislation and more education.

THE DOCTOR IN THE MOVIES

By GUY BOGART, Los Angeles, California.

WHEN the doctors look at Congressman Milford W. Howard's stirring southern drama, "The Bishop of the Ozarks," on the screen this winter, they will find an interesting problem in watching the actions of young Dr. Burroughs, for this part is taken by a real physician, William A. Dashiell, M. D.

Dr. Dashiel, whose theatrical name is William Kenton, was the first doctor to enlist in the world war from Arkansas. He had been practicing medicine in Little Rock for five years when the summons came, and he gave up his practice to go with the colors to France. He was wounded in action in the battle of Cantaigy, France, in May, 1918. From the effects of gas he was invalided home and was in the hospital for a year. He was unable to take up the strain of his profession for the time and turned his attention to a profession in which he had previously won wide recognition, that of acting.

In important Shakespearean parts Dr. Dashiell had played in "Richard III," "Merchant of Venice," "Othello," and "Hamlet" with the veteran R. D. McLean (who, by the way, has an important role in "The Bishop of the Ozarks"); besides playing leading roles in "The Littlest Rebel," "Third Degree Romance," "Money Spinners," "Sowing the Wind," "Pygmalion and Galetea," "Wives in Law," etc.

When Congressman Howard had organized the Cosmopolitan Film company in which he is himself appearing as the star in his own story of "The Bishop of the Ozarks," he chose Dr. Dashiell on the latter's reputation in "Hamlet" and in the Harlequin Players of Los Angeles. I happened to be in the Fine Arts Studio one day visiting when the doctor's treatment room was being shown. The property man had the finest kind of a movie office equipped, but when Dr. Dashiell looked upon the set his professional eye got busy at once on details. The "grip" was at once dispatched to his home to get his surgical instruments, and it was a realistic bit of real life which Sol Polito's camera caught.

I was curious to see the outcome of the scene and was allowed the following day to visit the director's projecting room. The scene of bandaging and caring for the patients makes a good clinic which the older doctors will like to view with critical appreciation of the young hero of the battle-front hospitals.

If Dr. William A. Dashiell decides to remain in the moving picture and spoken stage where he has climbed to an enviable height, the medical profession will have lost a valuable member —but in which branch of healing, medicine or smiles, he can best serve we shall have to leave to the Great Physician who guides the destinies of men. At any rate his brother physicians will want to watch for the appearance of "The Bishop of the Ozarks" and to watch for "William Kenton" as Dr. Paul Burroughs.

¶State Medicine as now practiced is limited to patients who are socially impossible or who are disease spreaders. Promiscuous medical treatment of disease is not a state's function. —Hubert Work.

SOME PRINCIPLES PERTAINING TC ULTRA VIOLET USAGE

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IN the quartz mercury arc lamp, the energy is derived by passing an electric current through mercury vapor, which, under certain conditions, glows with the emission of infra-red, visible light and ultra violet rays. The luminescent vapor, being encased in a quartz housing, is freely transmitted, as quartz is quite transparent to even the short wavelengths of ultra violet (to the limit of 1850 Angstrom units). Mercury vapor radiation is therefore rich in the short violet and ultra violet wave lengths; and these are extremely active, chemically and biologically, rivalling even the natural chemical intensity of the sun's rays.

There are two types of lamps furnished for practical use; the Air Cooled and the Water Cooled. Ordinarily, the Air Cooled lamp is used mostly in general systemic irradiation and the Water Cooled lamp is used for focal irradiation. This differentiation, while heretofore widely adopted, is, in the strictest sense, a most empirical one, unfounded on any serious consideration of the ray quality emitted by the two types of lamps, but ushered into use merely on the basis of manipulative convenience. A newer concept, and one based upon the researches of biophysicists, has elsewhere been defended. It considers the ultra violet energy derived from the mercury arc as follows:

Ultra Violet Energy (Mercury Arc)

Air Cooled Lamp	Water Cooled Lamp
1. Near Ultra Violet intensity.	Far Ultra Violet intensity.
2. Biologic (dominantly).	Bactericidal (dominantly).
3. Chemically oxidizing.	Chemically reducing.
4. Relatively penetrating.	Relatively superficial.
5. Metabolic synergist.	Metabolic depressor.

Most usually, the indications for the use of the Air Cooled lamp are such as to demand a biologic irradiation; and the general or systemic treatment is then correct. But there are instances in which a bactericidal treatment is desired over an extensive area in which case, not the Air Cooled but the Water Cooled radiation, systemically applied, is called for. A converse situation oftentimes occurs. So that the more modern ultra violet equipment has its mechanical arrangement fashioned to permit, in the case of the biologic Air Cooled lamp, both general and focal treatment.

Discussing first the Air Cooled or biologic lamp, we may express its action as being twofold:

1. Focal.
2. General.

The focal biologic reaction manifests in a series of skin changes that have been only relatively superficially studied, and are little understood. Immediately, there is a cellular attack by the rays that leads to the production, after a period of activity wherein no visible changes can be observed for from two to six or eight hours, of a reddening which may be:

1. Slight.
2. Intense.
3. Accompanied by blisters.

When these acute changes have subsided, there remains a pigmentation, which, by some biochemical mechanism not well understood, somewhat protects that area against subsequent exposures.* Some say that the pigmentation of certain races is an expression of climatic adaptation to hot countries, where the greater radiation of colored skin, as compared to white skin, will aid in protecting against the heat. This seems to be completely refuted by the pigmentation found in the Arctic regions, —say Esquimaux lands, for instance,—where there is little heat but intense sunlight.

Speaking clinically, the presence of actinic pigmentation is a useful asset. In psoriasis, for example, it seems to be the general experience that a skin kept pigmented by successive ultra violet irradiations, fails to develop the skin lesions. That is, actinic pigmentation is apparently a protection against certain epidermal dyscrasias. Manning privately reported that even a slight tanning of the skin on the back of the hand and wrists, by ultra violet, offers great and almost invariable protection against the occurrence of printer's eczema.

Thus, the focal effects of Air Cooled lamp irradiation may be classed as:

1. Acute
   - a. Slight erythema.
   - b. Intense erythema.
   - c. Erythema with vesiculation.
2. Chronic
   - a. Pigmentation.

Under histological study, it has been established that the various degrees of acute focal actinic reaction share such properties as to permit them to be called:

1. Slight erythema—Stimulative erythema.
2. Intense erythema — Regenerative erythema.

*Some say also to the subsequent exposure of even the X-ray. This contention, which is not proved, needs confirmation.

3. Blistering—Desquamative erythema.

These three types of erythema are so named as to convey the dominant histological effect on the skin exerted by each. In dermatologic practice, for instance, barring infections, the pathologic entities may be grouped as:

1. Hypertrophies.
2. Atrophies.

in which the hypertrophies are treated best with a desquamative erythema focally applied; and the atrophies, with a stimulative or regenerative erythema. Grouped according to authors who have reported success in the treatment of skin conditions that may be called hypertrophies and new growths, using a desquamative erythema, we may mention: Lentigo, Chloasma, Keratosis Pilaris, Keratosis Follicularis, Molluscum Epitheliale, Callositas, Clavus, Cornu Cutaneum, Verruca, Naevus Pigmentosus, Ichthyosis, Onychauxis, Hypertrichosis, Oedema Neonatorum, Sclerema Neonatorum, Scleroderma, Elephantiasis, Dermatolysis.

Similarly, the atrophic dermatologic conditions treated with regenerative or stimulative erythema doses, include. Albinismus, Vitiligo, Canities, Alopecia Areata, Atrophia Pilorum Propria, Atrophia Unguis, Atrophia Cutis.

The non-infectious (or dubious origin) inflammations are likewise included in the latter grouping, as follows: Erythema Simplex, Erythema Intertrigo, Erythema Multiforme, Erythema Nodosum, Erythema Induraturm, Urticaria, Urticaria Pigmentosa, Dermatitis, Dermatitis Medicamentosa, X-Ray Dermatitis, Herpes Simplex, Herpes Zoster, Dermatitis Herpetiformis, Psoriasis, Lichen Planus, Lichen Scrofulosus, Eczema, Prurigo.

Very obviously, the Ultra Violet rays are an important dermatologic adjunct; and under impetus of the brilliant discoveries constantly made in the scientific basis for the application of the energy, it is not surprising to see the significant prominence that this energy, like its companion energy, X-Ray, has recently commanded.

An important finding that has to do with technique should here be presented; that the reactions occasioned by ultra-violet, and used in dermatologic therapy, are focal but biologic. The biologic or Air Cooled lamp should therefore be used; and, in addition, the reactions should be obtained quickly.

The rapidity with which a skin surface reacts depends upon three factors:

1. Ultra Violet intensity.
2. Individual susceptibility.
3. Presence or absence of sensitizers.

Ultra violet intensity is a sum of energy (expressed in watts) consumed by the tube; distance separating the tube from the skin surface; and treatment time. Maximum voltage should be impressed across the tube. In the case of the alternating current outfits, this means with the selective intensity switch of the rectifier on "high;" or, in the case of the direct current outfits, with the rheostat resistance "out" enough to insure a voltmeter reading of 85 volts.

Since for ultra violet, as for all radiation, the intensity varies inversely as the square of the distance,* the tube should be brought as close to the skin as patient tolerance will conveniently permit; say eight or ten inches, measured from the pinion on the side of the tube casing. The time of the exposure varies according.

1. to the part treated;
2. to patient's susceptibility;
3. to presence or absence of sensitizers.

Flexor surfaces are generally more sensitive than extensor surfaces. Blondes respond usually more promptly than brunettes, though this is not always the case.

A splendid intuitive knowledge of dosage estimation may be gained by adjusting the voltage at 85 as directed, and at a distance of ten inches from the tube, expose one's forearm (flexor surface) for thirty seconds. Observe the reaction and estimate its degree (faint, marked, blistering, corresponding to stimulative, regenerative, and desquamative). From this trial observation, an appreciation is gained of the potential capacity of the ray that offers a keen ability to judge subsequent exposures accurately.

Speaking generally, when the biologic rays are used for biologic effect, as in all non-infectious skin lesions amenable to ultra-violet irradiation, the effort should be made to reach the degree of erythema sought (stimulative, regenerative, desquamative, according to skin pathology) in the shortest interval of time. This means:

1. High energy intensity.
2. Short tube-skin distance.
3. Mininmum time required for reaction sought.

Recent clinical experience has supported the superiority of this basis of treatment in dermatologic practice; and research offers a quick explanation, as follows:

Not only do the rays exert an effect on the skin. They attack also the fluids, blood and lymph especially, in the underlying tissues. Important chemical changes are wrought in these fluids under long exposure to the rays; and some of the products elaborated during the ultra violet irradiation, if accumulated in reasonably large quantity may react upon the skin so as to induce an irritation antagonistic to the biologic changes already accruing.

*This is correct for a point source; for a filament source it is only very nearly exact.

Advantage must be taken, by rapid and intense treatment. to effect the biologic change in the skin more quickly than the longer time required to exert deeper chemical changes in the fluids.

It is to these deeper changes in the fluids that the systemic effect of Ultra violet energy is due.

Obviously, continuing the discussion just propounded, when chemical transformations in the blood and lymph are sought, the irradiation, contrary to the case with focal treatments, should be long and not intense. This is accomplished by:

1. Increasing distance greatly.
2. Diminishing voltage.
3. Increasing time.
4. Selective filtration of desired wavelength.

No one has ever attempted to exhaust the biologic qualities that Ultra Violet energy displays on the irradiated human organism. Nor has anyone even listed the known reactions that are recognized as ensuing. Speaking alone of the blood, we find changes incident to ultra violet effect:

1. The cells and formed elements.
2. The Serum.
3. The immunologic qualities.

The red cells are attacked so as to increase their number (Wagner, Thedering, Bach, Rollier, Jeune, Schmidt) upon which action the successful treatment of chlorotic anemia, secondary anemia and lesser grades of pernicious anemia is based. Hemoglobin is usually raised. This serves not only as an adjuvant in the treatment of the anemias, but, also in reoxygenating physically exhausted tissues;* as after a deep x-ray treatment, or in the exhaustion following some psychotic and neurotic outbreaks; or to relieve anesthesia asphyxsia which, by saturating the cells with ether instead of oxygen often prompts nausea that can be averted usually with systemic ultra violet irradiations.

There is no complete agreement as to the changes produced in the white cells. There may be at first a leucocytosis, later leucopenia. The changes are regulated in part by the cellular tropic sensitizers that are present in the blood, and are activated by the influence of the ultra violet. Wagner says that the leukemias and pseudoleukemias respond to ultra violet therapy. Some clinicians in our own country claim confirmation of Wagner's stand. Janet Clark, according to Edgar Mayer, reports some experiments in rabbits in which she finds that long ultra violet wave lengths (near ultra violet intensity) are influential in increasing the polymorphonuclear neutrophiles and decreasing the lymphocytes cells in the peripheral circulation as determined by usual blood counting methods; and that far ultra violet intensity (short wave lengths) present a reverse effect, —that of increasing of lympochytes and decreasing polymorphonuclear cells. This observation can be obtained in the case of humans. It seems that there are certain wave lengths that so affect the blood stream as to call forth a polymorphonuclear response and still other wave lengths are influential in increasing the lymphocytes. The action is apparently dependent upon the changes in the surface tension of the blood stream induced by the Ultra Violet energy, probably through the effect on the protein content such as Bovie of Harvard reports in his study on the action of light on protoplasm.

On the basis of this difference a successful therapy of tubercular cases sometimes depends; a matter of such importance as to warrant a separate contribution.

In the serum the viscosity of the blood is changed; which may be a factor in lowering the blood pressure found often after ultra violet irradiation. Nearly always, the coagulative capacity of the blood is increased; and important determinant in hemophilia. In two cases of threatened persistent hemorrhage following tonsillectomy, the bleeding was promptly checked by local and general ultra violet irradiation; the local to arrest the hemorrhage by astringent coagulation of protoplasm, and the general to raise the coagulative quality of the blood for the insurance against later relapse.

The mechanical changes induced in the blood, as well as some of the chemical changes generally exerted by the ultra violet energy are useful in correcting some cardiovascular diseases; as endocarditis, pericarditis and polyserositis. In the endocarditis infections much of the benefit is derived from the immunologic uplift that follows ultra violet irradiation. On this topic the literature is quickly accumulating as may be observed by referring to Wagner, Thedering, Laqueur and others.

In tuberculosis of the lungs, as well as in tuberculosis of other parts, the work of Edgar Mayer, and more recently of Ruben Gassul, is significantly important. Gassul, in his monograph, considers the effect of various rays as diagnostics and therapeutics in the treatment of tuberculosis.

If we consider the immobilization of ferments through the action of Ultra violet light as an essential expression in the correction of the pathology of rickes, and the work of Hess, Unger, Pappenheimer, Gutman, McCollum, Shippley and Parks and others seems to justify the inference, we see here a mechanism that should offer infinite application in the ultra violet treatment of so-called "deficiency diseases," beri-beri, Keratomalacia nutritional

*This action was discussed in another paper.

dropsy, scurvy, pellagra and rickets. For instance, in pellagra, Goldberger of the United States Public Health Service sums up his conclusions relative to the disease, as follows: The pellegra-producing dietary fault is the result of some one, or, more probably, of a combination of two or more of the following factors: (1) a physiologically defective protein supply; (2) a low or inadequate supply of fat-soluble vitamine; (3) a low or inadequate supply of water-soluble vitamine, and (4) a defective mineral supply. The somewhat lower plane of supply, both of energy and of protein, of the pellagrous households, though apparently not an essential factor, may, nevertheless, be contributory by favoring the occurrence of a deficiency in intake of some one or more of the essential dietary factors, particularly with diets having only a narrow margin of safety. The pellagra-producing dietary fault may be corrected and the disease prevented by including in the diet an adequate supply of the animal protein foods, particularly milk, including butter and lean meat.

In connection with deficient protein supply, it is especially noteworthy to recall the researches of Kober and of Harris and Hoyt; that aliphatic amino-acids display general absorption of ultra-violet, and aromatic amino-acids, more especially tyrosin and phenylalanin show definitely selective ultra violet absorption. And, quoting from Robertson's "Physical Chemistry of the Proteins." Since the occurrence of any photo-chemical reaction is dependent upon the absorption of the chemically active rays by some constituent or constituents of the reacting system it would appear possible that the markedly toxic action of ultraviolet light upon many unicellular organisms may be dependent upon the absorption of the ultra-violet light-rays by the proteins of the organisms affected. Strong confirmation of this view is afforded by the experiment of Harris and Hoyt who have shown that if ultra violet light be passed through a thin layer of gelatin or peptone solution its toxicity for paramoecia is diminished to a much greater extent by passage through a similar layer of distilled water. Solution of urea, sugar or alanin do not confer this protection, while solutions of the aromatic amino-acids protect the organisms very markedly. Leucin likewise confers a very marked protection, but this amino-acid is rapidly decomposed by ultra violet light, yielding colored products, and the decomposition is accompanied by an increase in the protective power of the solution." From which we may observe that a correct knowledge of the type of protein deficiency in pellagra may offer the clue to the mechanism involved in the tendency to correction of this condition under the influence of the Ultra Violet radiation, or, from the viewpoint of vitamine deficiency, the corrective action of the actinic ray may arise through an effect similar to that which obtains in rickets. The study of mineral stabilization is just now being investigated; and, though a report would be premature owing to insufficient data, it seems correct to imply from the general direction of the findings so far obtained that ultra violet light has much to do with the reciprocal displacement in the animal organism of:

potassium for sodium,
magnesium for calcium.

Modern biology teaches us that the blood is really a relic of aquatic evolution. That its inorganic constancy represents the saline concentration of the sea. That it is essentially sea water with added proteins and pigmented cells; the pigmented cells to furnish a transport of oxygen to the tissues. In emerging from a watery habitat to an actimic environment (from sea to air) changes in the blood are wrought as a consequence of the ultra violet stimulus. It is only natural, then, that blood should be a quick absorbent of ultra-violet; for Grotthus early signified that "only the rays that are absorbed can de chemical work."

We may divide the indications for ultra violet therapy with Air Cooled equipment into:

1. Focal biologic
2. General biologic.

In which, focal biologic therapy requires:

a. High ultra violet intensity;
b. Minimum tube-lesion distance;
c. Short exposure time.

Under these conditions, the energy is expended quickly and mostly in the epidermal layers, where it inaugurates histologic changes summed up under the general heading of biologic erythema (stimulative, regenerative, desquamative). And general biologic therapy, arrived at by:

a. Low ultra violet intensity.
b. Maximum tube-lesion distance;
c. Long exposure time.

In this method, the lower and longer application makes for minimum skin effect, and permits a greater interval for the more penetrating biologic rays to reach the fluids (blood and lymph) where the chemical changes can be wrought.

If the biochemical changes influenced by Ultra Violet are grouped into general classes, we find important indices from chemical pathological studies that suggest convenient avenues of clinical approach in the application of this energy. Only the greater problems can be discussed in an article of such wide scope.

Consider the problem of oxidations and reductions in the animal body.* There are a

*There is a monograph on Biochemistry, published by Longmans, Green & Co., by H. D. Dakin on this topic. It should be studied in connection with ultra violet therapy.

number of reactions that make for the reduction of physiological compounds into simpler substances; and there are oxidation products similarly formed. Now, usually, aromatic substances do not undergo complete oxidation in the animal body, the benzene nucleus remaining intact. But there is a striking exception to this generalization; phenylalanine, a naturally occurring aromatic amino acid derived from proteins, readily oxidizes. And it is strange that only those amino acids possessing a side-chain of certain structure can undergo oxidation in the animal body. It will be recalled that Kober and Harris and Hoyt have confirmed Soret's original observations,—that phenlaylanine, like amino acids are the only amino acids showing selective ultra violet affinity. And so we see at once that an important branch of protein metabolism is intimately bound with the reciprocal relation that apparently exists between aromatic amino acid oxidation and ultra violet sensitivity.

What obtains in the case of amino acid oxidations, obtains also in the case of:

Carbohydrates;

Purine Derivatives;

Fatty acids.

It must be obvious what a trenemdous therapeutic potentiality these basic generalizations unfold. In terse terms, it means simply that the metabolism of all foodstuffs,—proteins, carbohydrates, fats,—can be accelerated or retarded through the judicious administration of Ultra Violet energy. After all, this is the main function that one should seek in so natural a therapeutic agent as actinism,—the action of chemical pace-making for the purposeful regulation of that part of physiology and pathology that is dominantly chemical in nature.

236 South Robey Street.

TO MY MOTHER

Grace Strickler Dawson

Whate'er life hold for me of wealth or fame,
Whatever heights I may aspire to scale,
Already you have longed for me to claim,
Already you have prayed I may not fail.

I cannot vision any purpose true,
But long ago you dreamed of it for me,
Nor strive a great and noble thing to do
But you have hoped such my desire might be.

With tender wisdom building through the years,
Stepping aside from selfish dream or thought,—
How can I render for your prayers and tears
Such fitting compensation as I ought?

I will live worthy of your love—but still
A higher obligation rests on me.
This mother-ministry I must fulfill
And pass it on to mothers yet to be.

Gastro-Enterology

JNO. M. BELL, M.D., F.A.C.P.

GASTRIC NOTES—MAYO CLINICS

¶ Usterman has found 30 per cent of jaws supposedly clean after extraction to contain either roots or fragments of teeth. Therefore extraction is neither justifiable nor adequate. Extraction of teeth by a procedure known as alveolotomy makes such a condition impossible. By this procedure every vestage of tooth is removed.

¶ Sippey's method of dealing with peptic ulcer is based upon the supposition that chronicity is due to the corrosive action of gastric juice. This hypothesis is debated by Carlson, Hamburger, Gensburg and Hardt, who contend that pylorspasm, peristalsis and increased gastric tension are factors of primary importance.

¶ Hardt—Medical Section—has studied the activity of gastric juice produced by means of Pavlov pouch method and has found that the injection of streptococci has not influenced the chronicity of the ulcer. Rosenow in 1918 had produced ulcer by the venous injection of definite strains of streptococci. He was unable to produce a chronic ulcer.

¶ Bacteriologic, chemical and mechanical factors all are elements in the etiology of chronic ulcer, also nicotine and dietary indiscretion. Heartburn and acid regurgitation, also pain, have disappeared upon the withdrawal of nicotine.

¶ In uncomplicated cases, Sippy's treatment is used. If there is chronic appendicitis, or gall bladder disturbance, medical treatment is discontinued.

¶ It is debatable whether toxic symptoms indicate a poor prognosis in ulcer cases. With very few exceptions, no kidney lesion is demonstrable in toxic cases. Since March, 1921, eighteen cases developed symptoms of toxemia. One was treated surgically and is completely relieved; one died; three had a recurrence of symptoms and were given medical treatment; one was treated by duodenal feeding; the balance have been treated during the past six months.

¶ According to the observations of L. M. Gompertz of Yale and M. G. Vorhaus of Harlem Hospital of New York, B. acidophilus, when given by the mouth, does not and cannot implant itself in the intestinal tract.

WEST BADEN AND WEST BADEN SPRINGS HOTEL

To many of the delegates and guests attending the meeting of the American Life Convention a visit to West Baden Springs Hotel proved one of the most delightful experiences



DRIVEWAY THROUGH THE GROUNDS

of the trip. The wholly delightful and unusual resort was one mile away from the convention headquarters, but a number of the delegates were registered there, and few failed to see the magnificent atrium or inner court of this hotel —the largest and most beautiful room of this kind in existence.

The first impression that is given by this wonderful atrium is that of vastness. The floor stretches away into the far distance. Hundreds of windows rise story above story high into the air, blending on either hand in the curve of a huge circle; and far over all, crowning this colossal space in regal splendor, is the mighty dome, the story of whose fame and glory has long since encircled the globe.

Gradually the details of line, coloring and decoration creep into the vision. The exquisite harmony of blended shades in mosaics, statuary, furniture and hangings, steals in upon the senses with a welcome feeling of repose. The world of cares, of barterings and bargainings, of unceasing struggle, is shut away. This is a world of its own. Within it is rest, wonderful, wonderful rest.

In the day time this great court seems to be a part of the big outdoors. The blue of the sky and the brightness of the sunshine is reflected from the dome overhead. Hundreds of tropical plants grow and flourish here as though it were their native sanctuary, making it a land of perpetual summertime. No matter what the weather may be outside, though winds may blow, rain may come, or snow fall, within it is always the same; for always there is the cheer and gladness of first bright spring days.

Night time here brings with it a spirit of enchantment. Shadowy mysteries lie concealed within the atrium's vast space. A long line of bracket wall lights outlines the great circle of the walls, throwing into rich relief the harmony of Pompeian decoration. Here and there table lamps gleam out into the half darkness, reflecting their rays upon marble tables and floors. Bits of statuary show faintly against the background of palms, while over all is the rare deep blue of the evening skies.

All at once a thousand tiny candles twinkle. The great dome glows with the reflected light of the gigantic pendant electrolier, which sug-



SPRUDEL SPRING PAVILION

gests the softness of the moonlight giving way to the brilliance of the noon-day sun.

There is the great meeting place for evening's pleasure. Congenial friends gather around the big fire-place. Happy groups assemble here and there, to enjoy the music, orchestra, singers, and entertainers. Dancing parties are held every week day night. It is the setting unsurpassed for formal gatherings.

Figures give but slight conception of actual size. The floor space is so great that a regiment of soldiers could maneuver here. The diameter is two hundred feet, the dome one hundred and thirty feet in height.

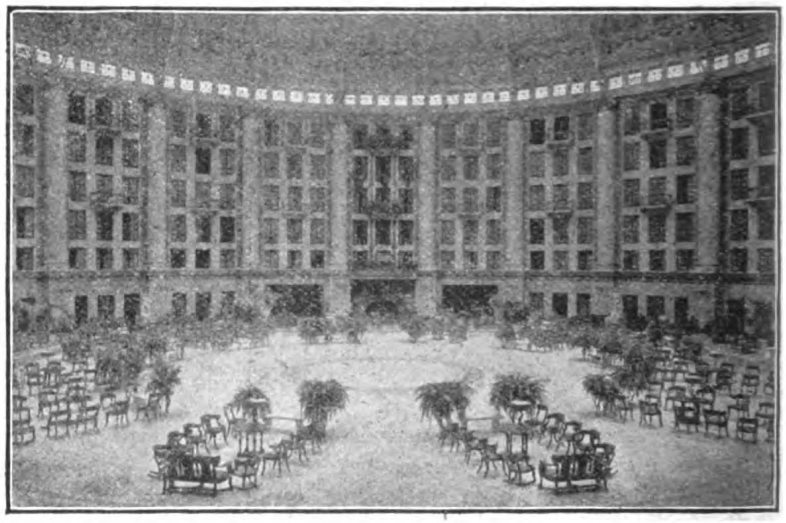
The rooms are in double tiers surrounding this vast court. Those of the inner circle look down upon it. Many of them open out upon balconies where the music, the evening's entertainment, and the marvelous scenic effects of changing lights and colorings can be enjoyed as well as upon the main floor.

The grounds at West Baden are now being wonderfully landscape. Last year magnificent new gardens were completed, linking together, by means of attractive walks and paths, the new springs pavilions. New tennis courts were built in the park adjoining the gardens and other excellent features added. This year the vast lawns in front of the hotel are being transformed, and forest trees, shrubbery and flowers will be lavishly used.

Lovers of outdoor life find much at West Baden to attract them. Next to golf, horseback riding is one of the most popular pastimes. Country roads soon bring equestrians out among fertile, well-tilled fields or into a famous orchard country, and shaded bridle paths lead off into rugged wilderness. Rambles out among the hills bring back to pale, wan cheeks the bloom of health. Motoring, hunting for small game in season, driving, trap-shooting and tennis offer pleasing diversions. Naturalists find much to interest them here, where specimens of another civilization have been brought to light, curious geological formations are shown, and in the caves of the vicinity rare specimens of blind forms of animal life are found. Even casual visitors explore these caverns, weird and uncanny though they become as the candlelight throws huge distorted shadows over crystal ceilings and mineral tinted walls.

West Baden Springs has long been recognized among the leading health resorts of this country, and the results that are obtained through the use of the water here compare favorably with those of the best of European spas. Their range of usefulness extends into many fields because of their particular effect in certain basic health requirements. A competent physician is in charge of this department, directing the quantity of water to be taken, and the proper combination of diet, baths and exercise.

The bath department is maintained under the supervision of a trained corps of attendants, and its high state of excellence is acknowledged wherever West Baden is known. The baths are connected with the main building and are easily accessible from the corridor on the main floor. The building is fire-proof,



THE POMPEIAN ROOM

with heat and ventilation perfectly regulated. Interior arrangement and equipment in the departments for men and for women are practically the same. The effects of the baths are secured under medical direction, through temperature, mechanical stimulation, and the chemical action of medical compounds.

Sulphur and mud baths are a distinctive feature, relieving swellings induced by gout, rheumatism and diseases of the liver and bile passages, also various skin disorders and nervous affections. Expert masseurs are employed and practically all the beneficial baths known to the medical world today are given here, together with shampoos and rubs.

THE MEDICAL ASSOCIATION OF THE SOUTHWEST

The annual meeting of this association will be held in Hot Springs, Arkansas, under the presidency of Dr. St. Cloud Cooper, of Fort Smith, Arkansas, the dates having been changed to October 16, 17, 18. The Tri-State Medical Society and the Southwestern Branch of the American Urological Association will hold their annual sessions in conjunction with the "Southwest." All meetings will be held in the Eastman Hotel, which will also be headquarters. Dr. William H. Bailey, of Oklahoma City, is the secretary, to whom all communications should be addressed. Dr. W. T. Wootton is chairman of the general arrangement committee. Make your hotel reservations early, and do not forget to include the ladies.

In the May number of Clinical Medicine there is an excellent article on Stammering, by Dr. E. Tompkins, Pasadena, Calif. The doctor explains many things concerning this dread malady—the difference between stuttering and stammering, the cause, theories; why they do not stammer when singing, etc., etc.

Carpings of the Cynic

FOCAL INFECTION AND ALL THAT SORT OF THING

There is a marked tendency to slow up on the wholesale removal of tonsils in all focal infection cases. The pendulum swings. The early enthusiasm of Billings and others seems to wane in the realm of chronicity. The same may be said of the teeth. The fact is still evident that a diseased, harmful tonsil should be removed, but it does not follow that all tonsils should be removed as a suppositious source of infection. If the tonsil has no function why is it that when guillotined the stump of lymphoid tissue will regenerate and renew itself and grow another tonsil? And while the tonsil may be the focal infection in some diseases, yet as Mix, Chicago, says, "If diligently searched for focal infection may be found associated with every disease mentioned in the Index Medicus, but this does not prove that the focal infection is the causative factor in all cases."

SEEDS FOR LEGISLATORS

"A license to practice is not an endorsement, but is an instrument to protect the public from the one who is licensed." Each doctor should send out these seeds to the legislature that they may be planted all around the legislative halls that the roots may sink down in good soil and the vines grow up into a good light, if you know what I mean.

NEXT

The Cosmopolitan magazine for April published an article by one Kelly, discrediting the claims of medicine.

The Century company recently published a book, "The Story of Drugs," by one H. C. Fuller, which purports to be a boost for patent medicine.

John D. Works, of California, before he was retired as senator, made a speech on the floor of the senate which was printed by the government and sent out under his postal frank for the Christian Science people. (I have received three copies, all printed at the government's expense, two sent out from Christian Science reading rooms). This was pure and simple Christian Science propaganda and a knock for the medical profession.

If you would see something exciting read what the Chiropractics put over in the New Jersey legislature. Read it and weep!

Now isn't it about time the medical profession raised up on its elbow and rubbed its eyes?

'N'everything.

I'll say it is! —H. N. J.

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

STUFFED CAPSULES

¶ While chancroid is usually rebellious to ordinary germicidal or antiseptic treatment, the disease may be cut short by a thorough dehydration of the ulcerating surface by desiccation.

✣ ✣ ✣ ✣

¶ Chilblains yield promptly to diathermy.

✣ ✣ ✣ ✣

¶ Do not expect to cure corea with any form of electrification.

✣ ✣ ✣ ✣

¶ When the systolic blood-pressure reaches 145 in a pregnant woman otherwise normal eclampsia is to be looked for.

✣ ✣ ✣ ✣

¶ The early treatment of epididymitis by diathermy will limit the deposition of inflammatory products and will also hasten their absorption after they are formed.

✣ ✣ ✣ ✣

¶ The nervous phenomena from which women suffer at the period of the menopause are often relieved by auto-condensation.

✣ ✣ ✣ ✣

¶ High frequency currents are more liable to aggravate than benefit uterine bleeding.

✣ ✣ ✣ ✣

¶ High frequency currents are contraindicated in mastoid infection.

✣ ✣ ✣ ✣

¶ Radium is equal if not superior to x-rays in the treatment of hypertrophied tonsils.

✣ ✣ ✣ ✣

¶ Tuberculosis is often benefited by mild doses of roentgen ray to the spleen. Intense dosage will aggravate the disease.

✣ ✣ ✣ ✣

¶ The Morse wave intensifies intestinal segmentation and through innervation of the intestinal musculature augments peristaltic function.

✣ ✣ ✣ ✣

¶ Pseudo-scientists and herteropaths of all previous conditions of servitude rely on Osler, who once upon a time said, "Ninety-nine per cent of our fellow citizens, when in trouble, sorrow or sickness trust to charms, incantations and the saints."

✣ ✣ ✣ ✣

¶ Golf players who chew bits of grass have been known to contract actinomycosis of the tongue.—Moral, better "chew the rag," boys.

✣ ✣ ✣ ✣

¶ The terms "fulguration," "cauterization" should not be employed in connection with high-frequency currents.

"Medical diathermy is a therapeutic means of increasing the general body temperature. It is not a cure-all. In some cases it is the indicated remedy. In others it is a most excellent adjuvant or antecedent to other therapeutic measures; for we must ever remember that diathermy is heat and heat only. Heat is essential to life, to health, to function; nature cures no disease, repairs no injuries, repulses no invading enemy without an increase in the production of heat. The increase is called fever or inflammation. Diathermy furnishes the needed heat for nature's processes without taxing the heat regulating forces. And it furnishes it when and where it is wanted."—E. C. Folkman, Amer. Phys., June, 1922.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald

and Electro-Therapist

Incorporating the

Kansas City Medical Index-Lancet

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All communications should be addressed to the Managing Editor.

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The Editors' Forum

The Control of Cancer

THE American Society for the Control of Cancer, with headquarters in New York City, was organized in 1913 at Washington, D. C., and has the co-operation of all national, state, district and local medical organizations in the United States.

The object of this organization is to disseminate knowledge concerning cancer among the lay public and profession to the end that cancer may be recognized in its earliest stages.

In November of 1921, this organization promulgated a Cancer Week throughout the length and breadth of the land. During that week fully 60,000 persons were reached by lectures alone, several thousand more received the message by short addresses in churches, lodges and theatres, and upwards of 5,000,000 pieces of literature were distributed. In addition to all this, countless other thousands saw display posters or lantern slides on the screens of moving picture houses, and newspaper and magazine publicity covered pretty generally the whole reading public of the country. It is conservatively estimated that no less than 10,000,000 persons received the simple facts of cancer control, either directly or indirectly, during the seven days' campaign in November. There will be another Cancer Week next November and the splendid work done in the past year will be carried on. It is by repetition that this message will be brought home. It is the ambition of the organization to reduce the cancer mortality by one-third in the next thirty-five years. When we recall that one man in thirteen and one women in eight dies of cancer after 40 years of age, we are impressed with the tremendous responsibility of the profession in doing all in its power to stay the ravages of this dreaded disease.

The Medical Society of the Missouri Valley, in its September meeting at St. Joseph, will present a symposium on "The Early Recognition of Cancer," and the Medical Herald will publish a cancer number containing the proceedings of this meeting. It is the desire of the Medical Society of the Missouri Valley to co-operate in every way with the American Society for the Control of Cancer.

The Rockefeller Foundation

"CURE looks through the microscope; prevention through the telescope; one thinks of the individual—the other of the community as a whole." How many doctors know what the Rockefeller Foundation is doing? The following is a synopsis of the work of 1921:

During the year 1921 the Rockefeller Foundation (1) continued a quarter-million annual appropriation to the School of Hygiene and Public Health of Johns Hopkins University, (2) pledged two millions to Harvard for a school of health, (3) contributed to public health training in Czecho-Slovakia, Brazil and the United States, (4) aided the Pasteur Institute of Paris to recruit and train personnel, (5) promoted the cause of nurse training in America and Europe, (6) underwrote an experimental pay clinic in the Cornell Medical School, (7) formally opened a complete modern medical school and hospital in Peking, (8) assisted 25 other medical centers in China, (9) promised a million dollars for the medical school of Columbia University, (10) contracted to appropriate three and one-half millions for the rebuilding and reorganization of the medical school and hospital of the Free University of Brussels, (11) made surveys of medical schools in Japan, China, the Philippines, Indo-China, Straits Settlements, Siam, India, Syria, and Turkey, (12) supplied American and British medical journals to 112 medical libraries on the continent, (13) supplemented the laboratory equipment and supplies of five medical schools in Central Europe, (14) defrayed the expenses of commissions from Great Britain, Belgium, Serbia, and Brazil, (15) provided 157 fellowships in hygiene, medicine, physics and chemistry, to representatives of 18 countries, (16) continued a campaign against yellow fever in Mexico, Central and

South America, (17) prosecuted demonstrations in the control of malaria in ten states, (18) co-operated in hookworm work in 19 governmental areas, (19) participated in rural health demonstrations in 77 American counties and in Brazil, (20) neared the goal of transferring to French agencies an anti-tuberculosis organization in France, (21) provided experts in medical education and public health for counsel and surveys in many parts of the world, and rendered sundry minor services to governments and voluntary societies.

The Notorious Morse Case

ONE of the broadest steps in the descent from government to anarchy is disregarded for laws which bend one way for privilege and the other for the common citizen. Such an untoward spirit already exists in our land, born, in a measure, of inadvertant legal interpretations. Inadvertance in the dispensing of justice will crop out and is unfortunate. But wilful miscarriages, and that favorable to privilege becomes an intolerable fire brand, deplored by all true citizens who long to see our democratic government perpetuated.

The Morse case is recalled to the public mind through the criticisms being made of Attorney-General Dougherty, who was one of Mr. Morse's counsel at the time the pardon was granted. The subject has been very impartially reviewed in the June number of American Medicine.

The prompt recovery of Mr. Morse from nephritis, which was quickly terminating his life in the Federal prison at Atlanta, and the passing now of ten years since the granting of the pardon by President Taft does give rise to some reflections among medical men and the laity. The examination and diagnosis were made by doctors of the Army Medical Board and cannot be questioned. President Taft was governed by petitions signed by a large number of prominent citizens and men of affairs, all of which were based largely upon the medical examination. Sympathy was aroused against the odium of death within prison walls, which constitutes a lasting stigma upon an innocent progeny. Without any criticism of Attorney-General Dougherty, which is now being made, nor ex-President Taft, who granted the pardon, nor of the opinions of the Army Medical Board, which were honest and well founded, the question of democratic procedure does assert itself. Death within prison walls is a terrible legacy for a new generation to shoulder. Death may be hastened, as it no doubt would have been in the case considered, by incarceration augmented by profound mental depression. There are, no doubt, many citizens in prison whose end is being hastened thereby, and children, innocent and numerous, who dread the handicap of the approaching cloud. Why not then a National Infirmary park, or retreat freed from odium, to which all such cases, debatable or assured, may be moved that recovery might be made more possible or death free from stigma to those who follow, and that all unfortunate men, of high or low degree, all citizens, may avail themselves of the City of Refuge, and be granted a pleasant hour in which to pass to their Maker. Then those who are left to fight their own life battles may do so, free from a terrible handicap. Let us keep the laws of the democracy free from discrimination. The objective of law is remedial, not vindictive. May it become more universally remedial in all its aspects.

J. M. B.

Sajous Gets the Gold Medal

THE gold medal offered by American Medicine, published by Dr. Lewis, has been awarded this year to Dr. C. E. M. Sajous for his remarkable work in the domain of internal secretions. A pioneer in the field, slow to be appreciated either at home or abroad; his exhaustive work published years ago receiving but slight recognition, he has the good fortune to come into his own and receive the plaudits of the American and European profession as the world leader in this field of medical exploration. The Medical Herald adds to the wreath of laurels its appreciation of Dr. Sajous and commends the directors of American Medicine upon their selection for the award.

THE KEY

Mary Agnes Kelly

Sweet dreams come to me, dearest heart.
What mean these sudden tears that start
When thoughts of you are like the rose
Which dainty, fragrant petals throws,
When through the twilight speeds the bee
All gold and dusty? Swift as he
To cell that waits his honey store,
My thoughts are winging evermore.

To you, beloved one, whom God
Hath given me. The path I trod
Before you came was thorn-beset,
Was steep and rugged, oft tear-wet,
But now, the flame of love that lights
your eyes and sends my soul to heights
Of rapture, makes amends for all
The bitter-sweet, the wormwood, gall
That life had given me to sip
With fainting heart and quivering lip,
Though all was once so lone and strange.
O, God, let not this vision change,
But keep for me the charms that speak
In your dear voice, for when I seek
The key to heaven, behold, it lies
Upon your lips, or in your eyes!

The Holy of Holies

"Deserting"

SOMETIMES in chronic cases a doctor gets discouraged. But a doctor should never give up the ship. Should never desert. Never show the white feather, but keep fighting. This is easy to say, it is blood to do.

Even with the tubercular and cancerous cases, he should never say, "I have done all I can do. You may call another doctor. I will not be back again."

Not at all—keep up the fighting front—keep organized—maintain the fighting spirit and show the bulldog tenacity. While there is life, there is hope!

So keep these patients on your list and call on them regularly or at least occasionally, and do not forget them. I recall one case of "my old preceptor," concerning which he said, "I would rather do most anything else than to call on this (hopeless) case." And yet, with regularity and cheer, at great personal cost and effort, he called and left the fighting line on the defensive.

You can give them much comfort, you can suggest many relief measures, you can boost up the neighbors and family attendants and maintain the personnel.

It is a great comfort to the departing sufferer to know that you, the family doctor, are fighting for them to the end, and will be there, no doubt, to hand them to the Pilot when they have crossed the bar.

Such continued faithful duty and service is appreciated by the family and friends.

As for yourself, personally, the mellowing influence, a duty well done, your faith abides, the vision rises; and this is life.

Harking Back.

DR. FRED H. CLARK
AN APPRECIATION

The departure of Dr. Fred H. Clark from Oklahoma City is a great loss to the medical profession of Oklahoma.

Dr. Clark's resignation as Secretary of the Medical Association of the Southwest is much regretted by the members of that organization, for through his untiring efforts there has been built up a strong medical society in the five states covering its membership. Every meeting of this association was a success, and back of that success was the work of Dr. Fred H. Clark.

How Dr. Clark found the time to devote to the work as Secretary of the Society, editing of the Medical Journal and attending to a busy practice has been a mystery to me. He loved the organization and threw his whole soul into making it what it is today.

During the late war while engaged in trying work of the camps he always found time to issue his "Bulletins" and keep his Journals going forward. Ev since the birth of this organization he has been t guiding spirit and through his efforts the Medical A sociation of the Southwest stands high among Med cal Societies.

The meeting at Kansas City last October was t best that Society ever held and many members stat that they got more out of this society than any med cal society they attended.



DR. FRED H. CLARK

Before his resignation as Secretary he began t work up a program for the next meeting in H Springs, and what was done by him assures this mee ing to be a success. The State Medical Societies a good. The American Medical Association is t largest medical organization in the world, but on a count of its hugeness, the average medical man ca get more practical work from the Medical Associatio of the Southwest.

We will miss Dr. Clark at our yearly meetings an trust that "his lines will fall in pleasant places" i his new work. His many friends wish him well, an should he return he will have the glad hand of h many admirers.

His mantle falls on the shoulders of Dr. Willia H. Bailey of Oklahoma City, who I am sure is worth and is capable of carrying on the work of Secretar of the Association and Editor of the Journal.—S Cloud Cooper, M. D., Pres., Ft. Smith, Ark.

THIS IS THE OPEN SEASON

Now, if you have caught your breath, contemplat the bill being introduced by perfectly wise legis lators in some quarters to compel the doctor to reg ister every year. There you are—very simple. Prob ably all you have to do is to ride up to the count seat, hold up your right hand and swear, dig dow your left hand and pay.

—I tell you more doctors are needed in the legis latures.

Are You a Member?

"Come with us and we will do thee good"

ORGANIZED at Council Bluffs, Iowa, September 27, 1888. Objects: "The objects of this society shall be to foster, advance and disseminate medical knowledge; to uphold and maintain the dignity of the profession; and to encourage social and harmonious relations within its ranks."—Constitution.

THE MEDICAL SOCIETY OF THE MISSOURI VALLEY

Thirty-fifth Annual Meeting at St. Joseph, Mo., September 21-22, 1922

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THE MEDICAL SOCIETY OF THE MISSOURI VALLEY AT ST. JOSEPH

THE thirty-fifth annual meeting of this association will be held in St. Joseph, under the presidency of Dr. Paul E. Gardner, on September 21-22. The Buchanan County Medical Society is preparing for a series of clinics to be held at the various hospitals of St. Joseph on Tuesday and Wednesday, preceding the meeting, September 19-20. St. Joseph has a proverbial reputation for warm-hearted hospitality, and the arrangement committee, under the leadership of Dr. Floyd H. Spencer, announces that the "tang" of his city for entertainment and good fellowship will be fully sustained upon this occasion. The famous hotel Robidoux will be headquarters, and all sessions will be held in the beautiful Crystal Room. The exhibits will be on the same floor.

One of the features of the second day will be a symposium on the "Early Recognition of Cancer" participated in by a number of men who have won national distinction in research work and clinical investigation. On Thursday evening at 7:30 o'clock, Dr. C. W. Hopkins, chief surgeon of the C. & N. W. railway, will give an illustrated lecture on "Injuries and Surgery of the Spine," and Dr. N. M. Keith, of the Mayo Clinic, will present a paper on "Hypertension in Cardio-Vascular Disease," illustrated by lantern slides. Following the evening session will be a smoker and other entertainments. Members are urged to bring their ladies who will be entertained while the fellows are attending the sessions.

Reservations of rooms at the Robidoux should be made early to avoid disappointment. The medical profession of adjoining states cordially invited to attend the clinics whether or not they are members of the society.

The preliminary program follows:

"Goiter Operation" (illustrated), Dr. E. P. Sloan, president Illinois State Medical Society, Bloomington, Ill.

"Toxic Factors in Intestinal Obstruction," Dr. T. G. Orr, Kansas City.

"Convulsions in Children," Dr. S. Grover Burnett, Kansas City, Mo.

"The Phosphatic Index," Dr. J. Henry Dowd, Buffalo, New York.

"Some Phases of the Relation of Dental Focal Infection and Systemic Diseases," (lantern slides), Dr. Russell L. Haden, Kansas City, Mo.

"Renal Function in Prostatic Hypertrophy," Dr. Raymond L. Latchem, Sioux City, Iowa.

Dr. Leigh F. Watson, Chicago, subject to be announced.

"Myoclonic Type of Epidemic Encephalitis," Dr. Lloyd James Thompson, St. Joseph.

Dr. Lynne B. Greene, Kansas City, subject to be announced.

"Cancer: Its Early Recognition," a symposium.

(a) Address, Dr. Fred J. Taussig, St. Louis, Mo., "How far Can the Cancer Death Rate Be Decreased by Educating the Profession and the Laity."

(b) "Superficial Cancers," Dr. E. H. Skinner, Kansas City, Mo.

(c) "Gastro-Intestinal Cancers," Dr. John M. Bell, St. Joseph, Mo.

(d) "Cancer of the Breast," Dr. Donald Macrea, Council Bluffs, Iowa.

(e) "Cancer of the Uterus," Dr. Palmer Findley, Omaha, Neb.

Complete program will be issued September 1; if you do not receive a copy notify the secretary. Dr. Charles Wood Fassett, Kansas City, Mo.

MISSOURI VALLEY NEWS

The Chamber of Commerce of St. Joseph will cooperate with the committee of arrangements in extending a cordial invitation to all doctors within a radius of 100 miles of St. Joseph to attend the clinics and meeting of the Medical Society of the Missouri Valley.

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Mrs. Blanche Gibson will have charge of the exhibits in the lobby of the Robidoux Hotel.

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The death of Dr. John M. Scott, which occurred on July 25, at the home of his mother in Peabody, Kas., removes another hero from the ranks of the medical profession. Dr. Scott, who practiced many years in Kansas City, was a pioneer in the use of the Roentgen ray, and his early experimentation eventually cost him his life. A more extended report will appear in our next issue.

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It is with feelings of sincere regret that we announce the removal of Dr. John W. Shuman from Sioux City, Ia., to Beirut, Syria, for the doctor will be sadly missed at the meetings of the Missouri Valley Society, where he has taken an active part for many years. Our loss, however, will be another's gain, and the appointment of Dr. Shuman to the important position of professor of medicine at the American University is a high tribute to his sterling character and ability. We wish him God speed. Just as we go to press the following letter was received:

Dear Doctor:

Your kind letter received this morning. Will hasten to answer before getting busy with packing preparatory to sailing September 13 from New York with my family for Beirut, Syria, where I have accepted the appointment of Professor of Internal Medicine, Medical College of the American University,

which is a wing of Columbia University, New York. Its trustees are all New York men. The teaching is all in English, but will have to brush up on my French (Syria is under French mandate) and learn Arabic in order to carry on consultation work. There is a 150 bed University Hospital. The university was founded by Dr. Bliss in 1863. Last year there were 115 medical students—they must take a five-year course in order to secure the M. D. degree.

Dr. Graham, who was the Internal Medicine Chief for thirty-three years, died February of this year. He did a monumental work in the Near East. His wife, a nurse, is now head of the Nurses' Training School and is erecting a home for the nurses in memory of her husband.

My sister and her husband (Esmond Smith, M. D.) are missionaries through the Presbyterian Board in Latakia, Syria. They will be agreeably surprised at my change. However, I cannot help but feel deeply for father and mother, who live in Los Angeles, and our brother, R M., who still lives at our birthplace, Washington, Ia. It is only natural that the parting calls for extra sympathetic nervous control. The work is big and I go gladly, hoping I will be able to put it over for the sake of those who bid me godspeed.

I will never forget the good friends of the Missouri Valley Medical Society. They have helped me tremendously. I thank you for your kind offer of continuing to send me the Medical Herald. Will write you after settled and going there. Just address me care of the Medical Department, American University, Beirut, Syria.

Always fraternally,

JOHN W. SHUMAN.

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We wish to congratulate Dr. F. A. Long, editor of the Nebraska State Medical Journal, upon the great improvement he has made in his publication since taking charge of same. The physicians of Nebraska have reason to feel proud of their state journal.

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Dr. David S. Fairchild, editor of the Iowa State Medical Journal, has contributed to the July number a valuable historical paper, in which is noted the physicians who located in Iowa between 1850 and 1860.

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Dr. F. F. Herrick, a major with Hospital Unit R in France, has been elected president of the newly organized Military Surgeons' Club, Des Moines, Ia.

✣ ✣ ✣

Dr. James Priestley has recovered from his injuries sustained several weeks ago in an automobile accident.

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Dr. John H. Stanton of Chariton, Ia., died at his home on May 25, at the age of 60 years.

MILROY'S DISEASE

From the Nebraska State Medical Journal we copy the following interesting letter:

"At the Twenty-fourth Annual Session of the Nebraska State Medical Society held in Omaha, May 10-12, 1892, Dr. W. F. Milroy presented a paper entitled "An Undescribed Variety of Hereditary Oedema." On June 1, 1892, Dr. Milroy presented the same paper before the Society of the Alumni of Charity Hospital, New York City. Dr. Milroy's paper was published in the New York Medical Journal November 5, 1892, and in the Proceedings of Nebraska State Medical Society.

"Since the publication of Dr. Millroy's article considerable interest has been attached to the disease. The best review which has so far appeared is that of Hope & French, pages 312-331, volume one, Quarterly Journal of Medicine. Hope and French report thirteen cases. The bibliography attached to this article contains twenty-three titles. This peculiar type of hereditary edema has been called Milroy's Disease by Olser, Hope and French and many other writers. Dr. Milroy's description shows distinct priority.

"In Osler and McCrae's Modern Medicine, volume 6, pages 661-665, Milroy's Disease is fully described. One plate taken from the article by Hope and French is used.

"In the Medical Clinics of North America, volume 1, Johns Hopkins number, pages 182-185, Dr. Lewis Hamman reports a case of Milroy's Disease.

"In the Boston Medical and Surgical Journal, volume 184, pages 479-483, Painter and Bean report three cases of Milroy's Disease.

"Faber, in an article in the Annals of Medical History, volume 4, page 34, entitled 'Nosography in Modern Internal Medicine,' says 'and Osler, Beard, Huntington, Hammond and Milroy in America, also made weighty and primarily nosographical contributions to internal medicine.'

"Other than Dr. Milroy no Nebraska physician is mentioned in Garrison's History of Medicine.

"Through the courtesy of Dr. LeRoy Crummer the library of the University of Nebraska College of Medicine contains a beautifully bound copy of Dr. Milroy's original article which appeared in the New York Medical Journal. Very truly yours, Irving S. Cutter, M. D., the University of Nebraska College of Medicine. Omaha, Neb.

CLINICAL WEEK IN KANSAS CITY

The Kansas City Academy of Medicine will hold a series of clinics on October 3, 4, 5 and 6, at the various hospitals of greater Kansas City. There will be three evening programs with addresses by men of national reputation, followed by get-together smokers and other entertainments. This will also be the "Priest of Pallas" week in Kansas City. It will give visiting physicians an opportunity to attend both the clinics and the fall festival, as they will not conflict the clinics being held in the forenoon of each day.

THE DOCTOR'S SOLACE

Del (Nick) Carter, Kansas City, Mo.

"To the game! To the game!" is the call that came
On the summer breeze one day;
And I couldn't resist the 'luring of this
Winged messenger I heard say:
"Oh, come, let us hie, on the winds we'll fly!
And cares we will subdue;
To the diamond out there at the ball park, where
A very good game we'll view."

And I heard the call of the little god, Ball,
And I went out to the ball ground;
I got a good seat and rested my feet
On the planks that were as sound
As the rock on the coast of Gibraltar we boast,
The strongest and known of yore.
And I watched the men play and heard the fans say
They'd ne'er seen the like before.

The wind fanned my brow that was fevered and hot
I enjoyed the plays they made;
I threw up my hat, nor calmly there sat
'Neath the grandstand's cool shade.
And I'm glad that I went and pleasantly spent
Those hours out there that day;
I'll never regret nor never forget
How it drove my dull cares away.

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

Radium Therapy.—By Frank Edward Simpson, A. B., M. D., Professor of Dermatology, Chicago Policlinic; Adjunct Clinical Professor of Dermatology, Northwestern University Medical School; Attending Dermatologist to Mercy Hospital, Alevian Brothers' Hospital, Henrotin Hospital, etc.; Former President American Medical Association; Director of the Frank Edward Simpson Radium Institute. C. V. Mosby Medical Book Co., St. Louis, Mo. Price, $7.00.

We greet this beautiful edition upon Radium Therapy with satisfaction. It carries complete chapters upon the physics, biology, technique and clinical application of radium. Beyond this there is a chapter upon radium injuries and a most complete bibliography of over 60 pages. Search for some deficient handling of any phase of radium therapy has been futile. One cannot but congratulate the author upon his excellent text. The publisher has provided excellent type, spacing, paper and illustrations. There are 166 photographic illustrations of apparatus and clinical cases.

The analysis of the chapter spacing reflects the studious application of the author. There are four hundred pages, arranged as follows: Seventy-three pages in eight chapters upon the physics of radiation, absorption, chemistry and filtration of radio-activity; 85 pages in six chapters upon the biological effect, reaction, apparatus, dosage and technique of radium applications; 152 pages in six chapters upon the practical application of radium therapy under the topical headings of Radium in General Surgery, Gynecology, Dermatology, Opthalmology and Oto-Laryngology, Ductless Glands and Internal Medicine.

This book surely mirrors the present attitude of successful radium therapy. There is no boastful enthusiasm. There is no clash with surgical judgment. The conservatism of the author is commendable and recommends itself to surgeon and specialist alike.

We take great pleasure in possessing a copy of this book and feel sure that every physician, however inexperienced in radium therapy, will derive great benefit from this excellent monograph by Doctor Simpson.—E. H. Skinner.

Management of the Sick Infant.—By Langley Porter, B. S., M. D., M. R. C. S. (Eng.) L. R. C. P. (Lond.) Professor of Clin. Pediatrics, Univ. of California Med. School; Visiting physician, San Francisco Children's Hospital; Consulting Pediatrician, Babies' Hospital, Oakland; Consulting Pediatrician, Mary's Help Hospital, San Francisco, and William E. Carter, M. D., Assistant in Pediatrics and Chief of Out-Patient Department, Univ. of California Medical School; Attending Physician, San Francisco Hospital. Publishers, C. V. Mosby Co., St. Louis, 1922. Price, $7.50.

This is a new volume og 654 pages and 54 illustrations dealing exclusively with the characteristics, diseases and handling of children under two years of age.

This reviewer is particularly impressed with the complete way in which the authors have emphasized the pecularities of young life and their relation to disease and therapeutics. Symptomatology in infancy is first considered in a general way. It is later handled in the chapters of Part II devoted to the diseases of the various regions and systems. The third part of the book deals with methods and there is a very valuable collection of food formulas and recipes for preparing the infant dietaries.

The author's recommendations are clearly made and they do not hesitate to condemn what they feel is useless.

There are so many things to commend and so little to criticise in this book that it is needless to go into detail. Even in the part devoted to drugs which contains numerous prescriptions, the variation in the dosage and the limitation of their application are usually defined. The writers have taken the pains to impress the need in diphtheria of never less than 10,000 units.

The general plan of the book is to give the reader a comprehensive idea of how to handle not one disease but all those that are peculiar to infancy. It is sane, well written, interesting in style and a work that both the pediatrician and general practitioner will need.—F. C. Neff.

The Thyroid Gland.—Clinics of George W. Crile, M. D., and Associates at the Cleveland Clinic, Ohio. The Thyroid Gland. Octavo of 228 pages, with 106 illustrations. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, $5.00 net

In the rush of the publishers to secure books on the internal secretions, while the furore continues, books of every different caliber have appeared. Some have not been able to maintain their position as exponents of our best knowledge of the endocrines, others have been real contributions to our knowledge. In this book of Dr. Crile and his associates, we had hoped to find one of the latter and in it much that was new and real.

The viewpoint of the Crile Clinic is best shown by excerpts from the introduction. These theses promise much, and one becomes quite enthusiastic in reading them. Here are three of these theses:

"We shall offer the general hypothesis that the body is an electrochemical mechanism in which the electric conductivity, hence oxidation, is controlled by the thyroid."

"We shall show that the electric conductivity of certain active tissues and organs is increased by iodin. Therefore we may suppose that in all cases of hyperthyroidism or hyperiodism the same tissues would not be equally influenced, but that in some cases one and in others another tissue would show the greater alteration, thus producing such various types of disease as the exophthalmic type, "toxic adenoma," the myocardial and the cardiovascular types. Graves' disease, Gull's disease, Basedow's disease, exophthalmic goiter, toxic adenoma are, at best, loose and unsatisfactory terms."

"We shall develop the following statements regarding the surgical treatment of hyperthyroidism:

1. We now believe that the so-called hyperthroidism is an intracellular acidosis which is overcome by restoring the normal acid-alkali balance. This is accomplished by the subcutaneous infusion of from 3000 to 5000 cc. of water; by digitalizing the heart; by blood transfusion, and by rest.

2. Any case up to the beginning of dissolution is operable, or may be made operable by a short period of active treatment which will be described.

3. Preliminary ligations are made in about 40 per cent of the cases.

4. The average reaction following ligation is practically the same as the reaction which follows admission to the hospital.

5. We no longer use hot water injections, quinine and urea injections, X-ray or radium; but we add to surgical treatment a planned regime of rest and diet just as if no operation had been performed.

6. In view of the surgical results we advise surgical treatment for all cases without regard to the degree of hyperthyroidism."

Unfortunately, the chapters which follow have not carried out the discussion of these points so well that we feel the promise has been fulfilled. The work done in the clinic has not been detailed sufficiently well for the reader to learn on just what grounds the author's opinions are based. Consequently, we leave the book with a feeling of distinct disappointment. And we hope that the next publication from this clinic will have been given more time and thought by the responsible editor so that it will be more thorough and far-reaching.—G. H. Hoxie.

Psychoanalysis: Its Theories and Practical Application.—By A. A. Brill, Ph.B., M. D., Lecturer on Psychoanalysis, New York University; Formerly Professor of Psychiatry, Post Graduate Medical School. Third Edition thoroughly revised. W. B. Saunders Co., Philadelphia and London, 1922.

The experiences of the war did much to bring psychoanalysis into further prominence. Dr. Brill, recognized American teacher of the subject, presents the newer and up to date progress in this third edition, carefully rewritten, revised and reset. A special effort is made to clear past misinterpretations and misunderstandings of "foolish rantings hurled at psychoanalysis by ignorant individuals." As most of these difficulties arise from lack of understanding of the psycho-sexual problems, a knowledge of which is predisposed in all students of psychoanalysis, new material was added to classify some of the scientific sexual phenomena, especially masturbation and homosexuality." Also a new chapter, Paraphrenia, a mild psychosis, is added to enlighten the average physician who rarely recognizes it but may see it through psychonaalysis.

Dr. Brill frankly states that patients have been harmed by application of psychoanalysis, ignorantly administered, and points out that the elucidation of the subject was the work of students who were first Psychiatrists and Neurologists.

With all the deep and seeming unfathomable mystery surrounding psychoanalysis the reader will be surprised at the author's plain language simplicity used in making so technical a matter understandable.—S. G. B.

Practical Infant Feeding.—By Lewis Webb Hill, M. D., Junior Assistant Physician to the Children's Hospital, Boston, Assistant in Pediatrics, Harvard Medical School; Illustrated; W. B. Saunders Co., Philadelphia and London, 1922. Price, $5.00.

The first chapter deals with the physiology and pathology of digestion and nutrition. The action of bacteria upon the intestinal contents and the metabolism of food elements are completely dealt with, and their handling by this author marks a distinct advance over the writings in text books of ten years ago. The reader understands the reasons for supplying the food elements rather than the use of empirical formulae in infant feeding.

The meaning of the stools in infancy is simply but sufficiently dealt with to give the reader much help in work with artificial feeding. The writer should be commended for his constant effort to be fair and broadminded in presenting guides for the preparation of milk formula. He has simplified the use of cream by using only one strength and that the ordinary 16 per cent gravity cream, with which anyone may become familiar in a short time. He recommends that the approximate percentages of the various elements in the formula, as well as the food value or calories therein be known, not as a method of feeding, but as a systematic control of the strength of the mixture.

Special preparations are of great use in individual cases; one should not follow blindly one way of feeding, but will find advantages in a knowledge of the foods that are suited to any one particular case.

The diarrheal diseases of infancy are also simply classified and their mechanics made understandable.

The ordinary nutritional disturbances—chronic intestinal indigestion, rickets, tetany, scurvy, etc., and pyloric stenosis are presented in a way to make their knowledge more easily acquired by the student.

Get this book by Hill! If you have no other book on the subject it will prove a valuable addition to your working library. Read it through and familiarize yourself with its practical teachings. If you have other books on the same subject it will help to crystallize your knowledge of infant feeding so that you will find great help and pleasure in what has usually been regarded as a difficult field.—F. C. Neff.

Anaesthesia and the Nurse's Duties—By A. de Prenderville, LL.B., M. R. C. S. Anesthetist to Charing Cross Hospital. Introduction by Sir James Cantile, K. B. E., M. B., F. R. C. P. St. Louis, C. V. Mosby Co., 1919.

A most commendable book of 100 pages upon the nurse's aspect of anaesthesia. It is the nurse who prepares the patient; whose quiet deliberation as associate in the work, freed from the load of responsibility bourne by the operator, detects many little factors of the patient; it is the nurse who takes charge ofter the battle of knife and wit, she must know all about aenesthesia. The little book, which may be slipped into a pocket, considers all phases of the subject, the physchology of the case, the circulation, the respiration, the heart, the throat, the after care, a general survey and the historic aspects. The subject matter is beautifully presented, the type easy to the eye and there is an absence of unnecessary verboseness.—J. M. B.

The Physician Himself, from Graduation to Old Age.—By D. W. Cathell, M. D. Vastly improved crowning addition, 1922; 360 pages. Price, $3.00. Published by the Author, Baltimore, Md., Emerson Hotel.

This is a book that should be read by every doctor. It has ethical, chaste advice for him at every turn of his checkered career. When he graduates he may here find his medical etiquette and table manners. When he doubts and goes stale or loses the vision, here he may find solaces and stimuli. When he slumps and is in danger of a settled carelessness and ennui—here the practitioner of medicine may spruce up, dress up and doff his hat again in the manner of the gentleman he must ever be.—H. N. J.

Symptoms of Visceral Disease.—By Francis Marion Pottenger, A. M., M. D., LL.D., F. A. C. P. Author of Clinical Tuberculosis, "Tuberculin in Diagnosis and Treatment," Etc. Second Edition. St. Louis, C. V. Mosby Company, 1922. Price, $5.50.

The second edition of Pottenger will be welcomed by the profession. We have had the first edition long enough to begin to absorb the new philosophy looking at pain points from a different angle. Pottenger takes us back to anatomy with a closer observation of reflexes; a survey of the endocrime system; a clearer aspect of the vegetative nervous system, the sympathetic and parasympathetic. His long experiences with the chest has lead to a more and more remote periphery, until there is reached a telescopic series of tracts, syndrones and divisions more dependent one upon another than we have dreamed. He takes the nervous system with its protein wonders away from the domain of the nurologist and delivers it in an attractive yet profound garb, to the general practitioner. A close study of the work will repay the reader.—J. M. B.

Medical Melange

BACTERIAL IRRITANTS IN HAYFEVER

That pollen irritation favors the development of ogenic bacteria in the respiratory tract and that e bacterial irritation which develops because a imary factor in Hayfever is now gaining recogni-n. Dr. William Schoppegrell, president American ayfever Preventive Association, has just published book on the subject of Hayfever and asthma in ich he states: "If the patient applies for treat-ent during an attack of Hayfever, the pollen ex-icts are usually ineffective, and a vaccine should used, these being injected at intervals of one or o days until the severity of the attack subsides." . . "Our reason for using the vaccines during se-re paroxyama is that at this time the patient is ffering, not only from the effects of the pollen otein, but also from the great increase in the patho-nic micro-organisms, resulting from the lowered sistance of the respiratory membranes. The use vaccine therapy at this stage is therefore logical, d has given us satisfactory results." . . . . "We e three forms of stock vaccines, each containing 00 millions to the cubic centimeter in various pro-rtions of the following micro-organisms. B. Fried-nder, M. catarrhalis, pneumococcus, streptococcus ogenes, staphylococcus aureus and albus." It will observed that the formula employed by Dr. Schep-grell is, for all practical purposes, identical with erman's No. 36. In this connection it is interest-ing to note that Dr. G. H. Sherman was the first physician to call attention to the role played by pathogenic micro-organisms in Hayfever and to uti-lize therapeutic immunization with bacterial vaccines in this disease, to control the complicating infection. And as Dr. Sherman says in his book, Vaccine Ther-apy in General Practice: 'We know that pathogenic bacteria are always liable to invade accessible tissues where normal resistance has been lowered by irri-tants. Pneumococci, streptococci, staphylococci and other organisms are found on the mucous membrane of the nose and throat of most normal individuals and in Hayfever cases these organisms are found in abundance. That these organisms are important com-plicating factors and are responsible for much of the irritation and most of the fever is quite appar-ent. Here the immunizing influence of bacterial vaccines is of real value in the treatment of Hay-fever. By this means sufficient resistance to these pyogenic organisms is developed to prevent them from becoming infective agents following the pollen irritation. The results is that the patient either goes on to complete recovery or the disease runs a modi-fied course, the pollen irritation being the only fac-tor left, which causes comparatively little distress."

(Hayfever and Asthma, Scheppegrell. Lea & Febi-ger, publishers.)

PALATABLE QUININE

It is often difficult to administer quinine to in-fants and small children. Pills, tablets and capsules, which disguise the intense bitterness of the remedy, cannot be administered to infants and many small children. Many adults find difficulty in taking them. Furthermore, the absorption of the drug is more or less retarded when given in these forms. Any ex-perienced physician knows instances, especially in

The Management of an Infant's Diet

A Temporary Diet
in
Summer Diarrhea

Mellin's Food . . . . . **4 level tablespoonfuls**
Water (boiled, then cooled) . . . . . **16 fluidounces**
To be given in small amounts at frequent intervals.

Each ounce of this mixture has a fuel value of 6.2 Calories and furnishes immediately available nutrition well suited to spare the body-protein, to prevent a rapid loss of weight, to resist the activity of putrefactive bacteria, and to favor a retention of fluids and salts in the body tissues.

Mellin's Food Company, Boston, Mass.

low fevers, where quinine pills, tablets and even capsules have been passed by the patient unchanged. In Coco-Quinine every one of these difficulties is eliminated. Each average teaspoonful, ninety-six minims, contains two grains of the true, unchanged crystals of quinine sulphate suspended in a bland, chocolate-flavored, syrupy medium that masks the bitterness but does not retard absorption. Infants and small children take Coco-Quinine cheerfully. In this form the dose of quinine sulphate may be large, yet so palatable, as one physician said, "A child will take it and lick the spoon." Coco-Quinine will not disappoint when prompt, full quinine effects are desired. Address request for further information and samples to Eli Lilly & Company, Indianapolis, Indiana. The drug trade supplies Coco-Quinine in pint and gallon packages.

A SHEET ANCHOR IN URETHRITIS

"I do not think I could say a more favorable word than that I used Sanmetto myself for bladder irritation, with decided benefit. I have also used it in my profession with benefit in inflammed and irritable conditions of the urinary tract. In irritable conditions of the mucous membrane due to prostatic enlargement and also following acute or sub-acute urethritis, it is a sheet anchor." From an unsolicited letter by the Od Chemical Co., New York City.

NEOCINCHOPHEN

A new drug that is certain to interest a great many has just been announced from the Abbott Laboratories, Chicago. We refer to Neocinchophen. It will be available from now on in 5-grain tablets. Being an ester (whereas Cinchophen, which preceded it, is an acid) this drug is less likely to irritate the stomach and may, on this account, be given without alkalis. That it has this advantage is affirmed by users of large experience with both drugs.

The indications for the use of the two drugs are identical. In Neocinchophen, the physician has a surer remedy for the pains of acute rheumatism than the salicylates. Besides, he has a remedy that patients can take who do not bear salicylates well. It does not irritate the kidneys as they do, and one may rest easy on this score when prescribing it. Relief may be had from it in other painful conditions, such as neuritis, arthritis, lumbago, sciatica and headaches. Being unknown to the laity, it may prudently be substituted for aspirin in many instances, with even better results.

AIDS TO DIGESTION

The salivary glands are not immune to the effects of constitutional conditions, accompanying or following acute infections or other general disorders, nervous or glandular. They are not always up to par, yet the whole chain of digestive processes is linked with their proper functioning. Let the patient go beyond the capacity of the ptyalin-producing glands in his choice of foods or in his desire to "build up," and he starts a vicious circle of indigestion that may have more serious consequences than his former condition. Hence the call for a diastatic ferment than can be taken with the food to supplement the defective ptyalin secretion. Parke, Davis & Company have been supplying such a product for many years, and of late its diastatic activity has been increased 100 per cent. The name of this product is Taka-Diastase. The product itself is supplied in powder, tablet and capsule form, and as a liquid; also in combination with tonics and other digestive agents. Samples of Taka-Diastase, together with literature, are offered by the manufacturers.

Loeser, in an article entitled, "A New Field for Pharmacological and Therapeutic Research," N. Y. M. J., October 19, 1921, states the basic scientific principles on which his pharamceutical work is founded. He draws attention to the fact that the therapeutic value and pharmacologic action of certain remedies are based on the effect upon the colloidial state of the blood stream and body fluids which in turn effect the respiratory and chemical exchange between the tissue cells of the body. He compares the effect of remedies introduced to the effect of bactrial and elementary proteins on the colloidal state of the blood stream and body fluids. Loeser for the first time in medical literature, demonstrates the establishment of scientific facts underlying the action of certain remedies which obey the laws recently established in the study of colloids. Briefly, that remedies of elemental substances act as electrolytes on the blood, which he points out is a typical colloid fluid, with the erythrocytes in suspension in the plasma, a hydrophile colloid; and that the intensity of the activity of these elemental remedies is based on their valence. He demonstrates that the monads, such as iodides, are tolerated in large doses; the diads, such as calcium, are more active; and that the triads, arsenic, antimony and iron, are the most toxic group, and produce profound changes in the colloidal state of the blood and tissues. Complete reprints on request. Address "Journal of Intravenous Therapy," 100 West 21st Street, New York City.

THE ANEMIA OF INNUTRITION,

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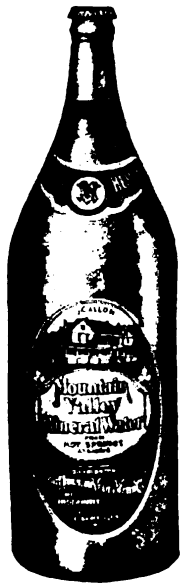
RECEIVED BY PRESIDENT HARDING

On Friday, June 30, 1922, President Harding received in the White House, the Medico and Pharmico Club of Cleveland, Ohio. The delegation was one of the largest that has visited the White House, numbering 120 prominent physicians and pharmacists of Cleveland, as well as members of the graduating class of Western Reserve University College of Pharmacy. They had traveled in large sight-seeing auto busses, having left Cleveland via the Lincoln Highway across the Allegheny Mountains, to Gettysburg, where they went over the famous battlefields of Civil War days. Thence they proceeded to Philadelphia, where their principal objective was a visit to the Pharmaceutical and Biological Laboratories of H. K. Mulford Company. They also viewed the botanical gardens which are being conducted by the H. K. Mulford Company in collaboration with the Philadelphia College of Pharmacy. From Philadelphia, the party proceeded to Baltimore and Washington, where the reception by their fellow Ohioan, President Harding, took place. Following the Presidential reception, there was a special luncheon, where a number of prominent speakers were heard, including Samuel L. Hilton, President of the American Pharmaceutical Association, W. H Bradbury, Manager of the Washington Wholesale Drug Exchange, and others. The Party then returned from Washington to Cleveland over the National Highway, through the historic Cumberland Valley.

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A SEASONABLE NOTE

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MOTHER LOVE

Clara S. McCulley.

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How I watched and wished their coming—but I lost the fairest one!

And his little feet a-dancing, sure I hear their music now,
And I bend my head to listen, but it seems I can't, somehow.

For my heart and soul remember all the little baby charms,
And my dreams are filled with longing for the clinging of his arms.

Mary, mother, I am praying, with my face al dewed with tears,
But no little lad comes to me, with the passing o the years!

But the mother love is faithful, and the mother lov is strong,
When I hear his voice come drifting, like the ech of a song.

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Medical Life.
SEP 13 1922

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Dyschezia—A, dilated ampulla of rectum; B, hypertrophied rectal valve; C, sigmoid. From "Diseases of the Digestive Organs," by Chas. D. Aaron, Sc.D., M.D., F. A. C. P.

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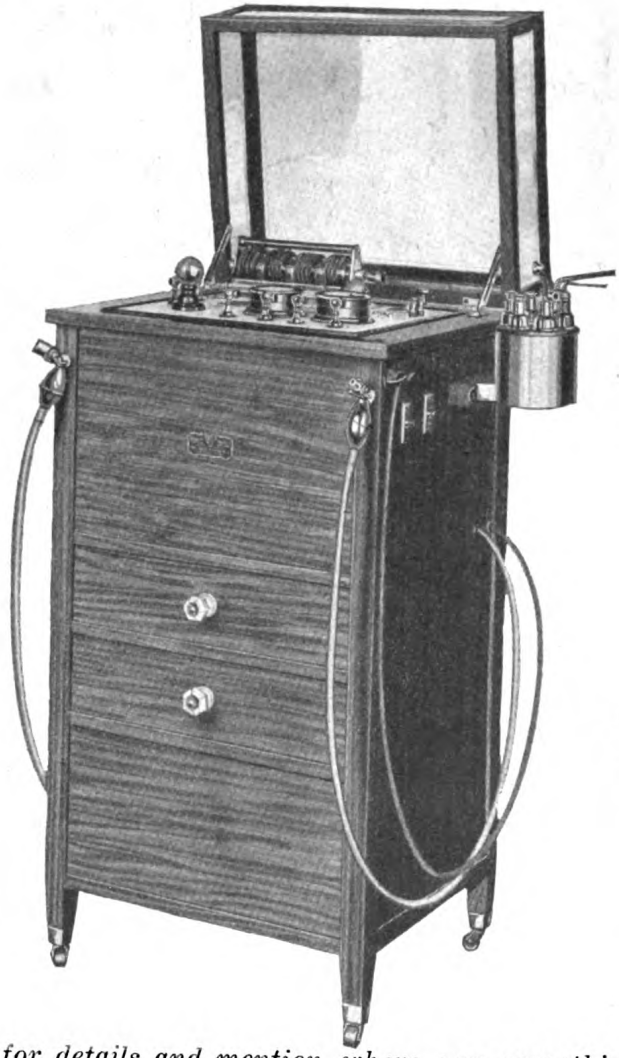
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l. XLI SEPTEMBER, 1922 No. 9

Original Contributions
(EXCLUSIVELY FOR THE MEDICAL HERALD)

EPORT OF COMMITTEE ON STATIC CURRENTS OF THE WESTERN ELECTRO-THERAPEUTIC ASSOCIATION

By
J. D. GIBSON, M. D., Chairman
WILLIAM BENHAM SNOW, M. D.
S. G. BURNETT, M. D.

RICTIONAL, Franklinic, or Static Electricity is one of the older methods of applying electricity in the treatment of diseases. For its production there are a variety f machines both in size, construction and out-ut. The Holtz and Tepler Holtz machines, as nanufactured in America, are the equal in de-ign and output of any that are made. These nachines may be compared by us as the violin f all the electro-therapeutic apparatus in the lectric orchestra. Like the violin, it is one nachine, but in the hands of the master a thou-sand different tunes or applications of electric nergy can be obtained and all variable and useful with different effects.

The static machine has always been unpopular with the general practitioner, and deservedly so, on account of the difficulty of charging and recharging the machine, or, in other words, keeping it so it will work. In this day and time, when the machines are kept internally clean and dry, with other electric apparatus present, the charging of the static machine becomes a matter of small importance thus making it tenfold more useful in a general way than formerly. By means of using the x-ray generator and other high frequency apparatus the charging of the static machine is easy and enables one to use it constantly.

To charge your static machine from the x-ray machine or any other high voltage apparatus, you run a wire connection from one pole, or say from positive pole of x-ray machine and attach it to one of the prime conductors of static machine. Then bring the connecting rods close together but not touching by half an inch or so. Start first the x-ray current going through the static machine, then start your static machine going and ground the other prime conductor when a vigorous spark will begin passing between the prime conductors and it will soon be seen that the machine is generating, when the ground chain should be removed first, x-ray machine stopped and its connecting wire removed from the static prime conductor and the static allowed to continue to run producing its final charge. By this means, any static machine that is anything like in good condition can be easily charged and made to work regularly.

If the room is cool and not too moist these charges will remain indefinitely, but a hot, damp room will soon dissipate the charge. I have seen static machines go for months without recharging. It should be remembered that the colder the room and machine the easier the machine is to charge and the longer will it hold the charge.

If kept in good shape, the Tepler machine will charge itself and save much labor, but the Holtz machine gives a current slightly smoother and less painful. The great beauty, or most important part about the static machine is that there are so many varieties or currents producible. It is a very easy matter to be able to produce one to suit most any conceivable pathological or functional condition. There is scarcely a pain but what may be eased by some one modality whether it is congestive, pathological or functional.

Many books have been written upon the static machine and its output and I dare say many more will be written in the future. In this report there will not be very much said of treating any special disease but we will try and generalize in such a way that each man may work out the finer points in his own technique. Howard Humphries of London

and Dr. H. F. Pitcher are strong in their opinion that no other machine can take the place of the static. Willard Travell and our esteemed ex-president, Dr. Grover, in his recent book on electro-therapeutics, sings the praises of the static machine. Dr. Grover says, "When a physician once learns the benefits to be derived from the static machine and learns how to operate it, he clings to it tenaciously. Were I limited to one electric modality in my work, I should by all means choose the static machine because there is no other modality capable of so wide an application in electro-therapeutic work. No other agent can compare with it in usefulness in a wide range of affections."

It must be remembered that the static machine gives us a true unidirectional current and this makes a current that is amenable to many or thousands of variations and some difference in each variation. We will try to give a general resume of effects of these many different static modalities, or try to classify them in such a way that it will be easy for those that are already experienced in the work to keep a working hypothesis constantly in their minds. Remember, we are working with the same fluid and vibrations all the time but it is changed by many modifications, giving us many changes in therapeutic application.

By means of modifications we are able to produce a most profound and positive direct stimulation from long and powerful sparks. These are painful and you might say the heaviest and longest vibrations of possible use with the static machine. These sparks can be modified and lessened to suit varying conditions until it reaches the frictional or contact spark produced by rubbing with a large brass ball or some other metalic electrode or frictional applications with vacuum glass tubes, metalic contact electrodes or wet pads. Each and all of these methods or varieties of currents have their own individual fields of usefulness or indications in the treatment of disease.

As a general rule, the more chronic and longer standing the condition and more fibroid or chronic the exudate or inflammatory condition the longer spark or the more stimulating applications will be needed, can be used or will be well borne. The spark from the large brass ball may be employed from several inches long down to the frictional spark by rubbing firmly the effected part with the brass ball or any of the metal electrodes.

These applications are the hottest and most painful ordinarily used for therapeutic purposes from the static machine, but in properly selected chronic cases or deep seated conditions they are capable of producing wonderful effects. Nothing that I know of relieves the girdle pains of tabies dorsalis or the agonizing pains of an old sciatic neuralgia or sciatic neuritis which has lasted for years like the static spark,—good, long, thick sparks at that. It will also be noticed that the thick, fat spark from negative insulation eases these conditions much better than the long, straggling, fine negative spark. In real chronic nodes of arthritis deformans and other old chronic, septic, semianchylosed conditions, these sparks frequently render much aid and give splendid service. They also come in very handy along with frictional rubs after other treatments, as from the wave current, static brush discharge, etc.

The modified sparks, or frictional rubbing in which you get an exceedingly fine spark is an excellent way of closing the treatment in most any chronic condition as it removes pain very promptly and effectively. Old cases of pleurisy and subacute pleurisies will be relieved more quickly and decidedly by the frictional sparks from the brass ball than by most any other means; and, it not only relieves the pain but it acts in a definitely curative manner. In fact, the frictional rub can be given in pleurisy in most all cases where there is not very much temperature and the condition is not very acute. It will definitely aid in preventing an effusion in the pleural sack, and I know of nothing better to aid in removing the effusion where it is free from puss than this same frictional rub. Two or three of these treatments per week, or on alternate days is usually often enough, as this allows time for the reactions to subside before the next treatment.

Remember, that with all static applications, especially the one pole applications, there is a profound effect upon the whole system. This may be more or less decidedly stimulating and same can be made sedative as wished by operator. They produce a powerful, a wonderful tonic effect, or have an exceedingly beneficial effect upon systemic metabolism.

The American Electro-Therapeutic Association, several years ago, during my term of office as president of said Association, employed a well known physicist of Brooklyn, at considerable financial expense, to carry out some definite experiments and studies in metabolism under the influence of two or three of these most popular modalities from the static machine. He was able to prove by positive and direct methods the advantages gained to the human system from the proper application of these currents. The intake and output of the body were all tabulated and the proofs submitted to the Association were very convincing and definite in demonstrating the splendid results of these currents on metabolism, both anabolism and katabolism.

The writer has treated many thousands of cases with static electricity as his main general

tonic and has seen many splendid results. He saw one patient gain ten pounds in one week under the influence of the brush discharge applied daily for ten minutes. This, of course, was a very exceptional incident, but it is an ordinary occurrence to see patients readily put on weight, where it has been lost, from applications of this character.

STATIC STRESS—Brush discharges and breezes will be discussed under one head. We will divide the brush discharge into three kinds owing to their degrees of stimulation, or peppery effects: First—The discharge produced by the large wooden ball electrode properly dampened for the purpose;

Second—There is the brush discharge a little less peppery from the multipointed metal electrode or the wooden pointed electrode:

Third—The discharge from the blue pencil of de Kraft.

The brush discharge can be obtained by these electrodes being attached to the ground chain from which the spray is played over the different parts of the insulated patient as selected by the operator, or a special modification can be made in these applications as suggested by Dr. Willard Travell; namely, that the electrode be attached to the metallic electrode holder and then connected by a wire to a spark gap attached to one of the prime conductors, the insulated patient, of course, being attached to the other prime conductor. This modification by spark gap influence makes a very powerful and exceedingly valuable and useful modification.

All brush discharge applications or breezes must be given with the patient on an insulated platform so that the production of electric stress is produced by the great voltage piled up all around the patient on the platform. The production of this stress on the platform permits the great electric rush when these electrodes are brought near the patient causing the phenomena named as brush discharge. This class of application can be made exceedingly useful and is not nearly so painful as the class mentioned above under the head of sparks, etc., yet it can be used to stimulate and give a peppery tingle that is very fiery and penetrating indeed, reddening the skin and producing quite a hyperaemia.

These sprays can be modified by the rapidity of the machine, by the conducting electrodes changing the length and volume of the electric current. The milder forms of this brush discharge are usually spoken of as crown breeze and simple static breeze which is usually considered milder than the ordinary brush discharge. There is scarcely a pathological or functional disturbance but what can be modified or relieved by the proper use of this class of applications in its many modifications.

The writer uses the brush discharge from the wooden ball or the multipointed metal electrode as a standard therapeutic application in all of his tubercular work. It gives more support and strength to the weak and overburdened heart in these conditions than any other measure that he has used in the many years of his experience. The brush discharge is delivered over the cervical and upper dorsal spines, and he considers that the heart, stomach, liver and lungs are energized and improved in their nerve and circulatory functions thereby.

Sprains, bruises, rheumatism, neuritis, synovitis, arthritis, tubercular ulcers, as lupus, chronic ulcers, myelitis, deafness, tics and other chronic conditions can be relieved and most of them cured by the proper use of these currents.

WAVE CURRENT — Morton Wave Current. This current was first demonstrated by the great pioneer and teacher of electro-therapeutics, W. J. Morton. He was lucky enough to explain and demonstrate its value to a pupil, William Benham Snow, who tried it out upon himself and was so much pleased with it that his enthusiasm knew no bounds and he named it the "Morton Wave Current" and this cognoman is attached to it at the present day. The great popularity and usefulness of this current today is due more to William Benham Snow than any one else, and in his books and other writings he has never failed to sing its praises. When it was first spoken of and introduced by him at the meeting of the American Electro-Therapeutic Association in Washington it attracted little attention and many thought Snow did not know what he was talking about, but the same men who ridiculed Snow at that time have lived to become warm advocates of this modality.

This current and its modifications, you might say, is a more or less sedative current, that is, its effects upon many tender, swollen, acute and subacute conditions are very soothing and in many cases it seems to produce a semi-anaesthetic ease and restfulness. It is the current par excellence in acute febrile conditions in which you cannot use at all the aforesaid stimulating currents. Its vibrations are so fast and are subject to such complete control that it is rarely you find a condition so painful or acute but what it can be used to reduce the swelling and ease the pain.

All metal contact or wet pad electrodes used on a one pole current in which there is a spark between the prime conductors, is a wave current. The wet pads are smoother and less painful than the plates. Splendid results can be obtained by means of this current in washing out the stomach. Say, give patient a glass or two

of water to drink then place the metal electrode over the solar plexus, dampen it with warm water, over which place a dry towel folded over several times, holding firmly over the abdomen over the region of the lower end of the stomach or solar plexus; connect this electrode to the positive pole of the machine and have the prime conductors close together, start machine and ground the other pole, gradually and slowly draw the prime conductors a little at a time farther apart until there are definite positive contractions produced in the stomach and abdominal muscles. This current, applied by means of the metal rectal electrode or Willmeth vacuum glass prostatic electrode to the enlarged prostate gland, is one of the nearest pannaces we have in electro-therapeutics.

INDUCED WAVE CURRENT — Morton Induced Wave Current. This current is of splendid utility and at one time was the most popular modality of the static machine, but Snow has changed this in late years and this current is now used mostly for its powerful vibrating and contracting muscular effects. It is taken from the outside coatings of the Leyden jars with a small spark gap between the prime conductors. It is a two pole current and gives you a direct contracting two pole current through tissues to which it is applied.

With patience and knowledge in handling this modality it is capable of doing wonderful therapeutic stunts and many of us used it for many years in lieu of all sinusoidal currents. It is very penetrating, powerfully contractive, unidirectional and so smooth that with patience it can be given in such a manner as to be absolutely painless. For constipation, toning up the muscles of the abdominal wall, treating indenominate pains and aches in the right hypocondric region, this modality has no superiors. Many painful pelvic conditions are relieved by its magic and it should be used much more than it is.

¶ C. C. Bass Tulane University, New Orleans, has been doing work in transforming the intestinal flora. He observes B. bulgaricus cannot be colonized in the intestinal tract without the use of lactose. No other sugar will suffice. Nor do the dry preparations of the bacilli, except in very enormous doses. The result of Bass' work coincide with those of Rettger and Chaplin, that the ingestion of 300 grams of lactose daily provides a rapid increase of acid flora and ultimately, within ten days, destroy putrifactive flora. There are very few people who can tolerate such doses of lactose. B. acidophilus, with smaller doses of lactose, accomplish the same result.

THE ACUTE ABDOMINAL PATHOLOGIES

By JACOB GEIGER, M. D., LL. D., F. A. C. S.,
St. Joseph, Mo.

I DESIRE to offer a few general considerations before entering upon some of the most important acute abdominal pathologies.

The science of Medicine is a philosophy which never rests. It is acutely progressive. It is not the settled problems of Medicine about which much is written, it is rather concerning those matters of which many things still need to be made clear.

There is no essential difference between Medicine and Surgery, the two sciences or arts are indivisible, the problems and work of mind and hand should not be considered from one to another. We must, however, admit that surgical research has greatly enlarged our knowledge of the problems of internal Medicine.

In the transition of a patient from ill health to sound health, an operation is only one factor and every surgical operation is an experiment. Even the best and most perfectly performed may bring its disappointments.

Successful surgery requires extensive vigilence, careful co-ordination and supreme presence of mind. This is the only highway to success, the by-paths to failure are countless. Use the six senses, touch, sight, hearing, taste, smell, and common sense.

It is not ill luck that is the cause of failures, it is the want of knowledge and lack of care. The surgical operation chain is composed of many links, the breaking of any one may lead to disaster. At the present time, the tendency is to simplification of methods, plain, thorough cleanliness, by washing, by plain sterilization, instead of chemical sterilization, and the removal of all contaminated and traumatized tissue, and a reliance upon the germicidal power of uninjured cells.

We have quit probing punctured or penetrating wounds in the cranial, abdominal or thoracic cavities; we no longer irrigate these cavities over a wider area than has been contaminated and if we irrigate at all, we use one per cent saline, instead of pure water, which always irritates.

No operation which is not urgent should be undertaken before the safety of the surgical measure has been duly weighed, the necessity of making a diagnosis at an early period for the purpose of instituting prompt, surgical intervention is apparent to all.

The ritual of a surgical operation comprises many things. Surgery should be a merciful

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Read before the St. Joseph Surgical Society and the Buchanan County Medical Society.

art. The cleaner and gentler the act of operation, the less the patient suffers and the better his convalescence.

Surgery today is the work of a team and every member must play his part well to avoid disaster. All external garments worn by surgeon and his assistants, should be changed for sterilized linens. Thorough scrubbing of hands and arms with soap and running sterile, hot water for ten minutes. Also use clean sterile brush and nail cleaner. Rubber gloves are almost universally worn during surgical operations. They should be sterilized dry.

The best method of preparing the skin at the field of operation is by abundant washing with etherial soap and hot water, gentle friction with an alcoholic solution of biniodide of mercury, one to five hundred, then covered by sterile towels, retained by adhesive plaster.

A further skin disinfectant is half strength Tr. Iodine applied to a clean dry skin, is perhaps the most commonly employed and is perhaps the best. A five per cent alcoholic picric acid solution has bacterialcidal value but it does not penetrate deeply. Towels should surround the operation area and fastened to the skin by clips.

The wound should be kept dry and clean, there should be no great exposure of raw surface or viscera to be chilled, but should be covered with hot, moist cloth or mackintosh. The operation should be practically bloodless, immediate closure of all bleeding vessels is important.

While traction is necessary in many operations, forcible pulling and retraction devitalizes tissues and causes shock.

The question of rapidity of operation is very much a personal one. In all movements of the surgeon, there should be neither haste nor waste. Manual dexterity has its advantages. The slower operator entails more manipulation of tissue, more anesthesia, more shock, and longer exposure of a wound, therefore greater possibility of infection and lowering of tissue resistance.

The ideals are accomplishment of purpose, as rapidly as possible, short incision, a delicate sense of touch, light handling and and conservation of the natural resources of the body and respect of Nature's defense.

The presence of pre-operative fever indicates that the case is not strictly an aseptic one, therefore danger of dissemination of infection.

Increase in pulse rate is of greater significance than temperature elevation in abdominal conditions.

Analyze results by examination, by inspection, palpation, defense muscularis, localized rigidity or diffused pain and tenderness on pressure, and impairment of function.

Carefully weigh both objective and subjective symptoms, X-ray and laboratory examinations, with history of the case, and above all, not consider the patient only as a human being, but as an individual, and see if he was in a state of physiological equilibrium prior to the acute condition.

We must remember the symptom complex of a given disease, is not the result of a single factor, working in a single, direct manner, but a resultant of many factors, working extremely, complexly, no impulse can act in one tissue alone. The sydromes of the same disease will vary, not only in different patients but in the same patient at different times.

We will consider briefly a few of the most frequent and urgent acute, pathological conditions in the abdomen. Viz.:

Those of the stomach and duodenum, the gall bladder and bile ducts, and those of the small and large intestines, and the appendix.

There is no group of symptoms common to all acute abdominal conditions. They may be classified into four.

First, those in which inflammatory symptoms appear early and predominate.

Second, those in which pain of varying intensity is the principal symptom followed by signs of localized or diffused peritonitis or symptoms of intestinal obstruction.

Third, those cases in which the symptoms of intestinal obstruction are the most prominent from the onset.

Fourth, those in which either shock or hemorrhage, or both, are marked and are followed by signs of peritonitis and bowel paralysis of a milder degree than complete obstruction.

The most frequent and urgent pathological condition in the abdomen are acute perforation of stomach or duodenum, acute cholecystitis, with or without stone, all forms of acute intestinal obstruction and acute appendicitis.

Gastric sugery is more than thirty years old. The stomach has become an organ of supreme interest to the surgeon in these days although some lesions of this organ still belong to the domain of the Internist.

A gastric ulcer is an ulcer occurring anywhere in the stomach as far down as the ampula of Vater. Ulcer below this point is a duodenal ulcer. Gastric ulcer is not as frequently met with as we think, as radio-graphic examination and our experience in the operating room too often confirms this statement.

It is said five per cent of all mankind suffer from gastric or duodenal ulcer, most of them in the pylorus or in the first two and a half inches of the duodenum. Ulcer of the stomach and duodenum occur twice as often in men as in women.

Gastric ulcer is usually preceded by a history of long continued pains referred to some

particular spot in the epigastrium, increased by taking food, and often accompanied by hematemesis. The pain is the chief feature. The earlier the pain is felt after a meal, the nearer the ulcer is to the oesophegus. If the pain comes on three or four hours after the meal, the ulcer is below the pylorus. The heavier and coarser the food, the greater the distress.

Repeated or long-continued hyper-acidity usually means gastric or duodenal ulcer. The chief dependence in making a diagnosis of gastric and duodenal ulcer is the symptoms of pain, hyperacidity and disturbances of digestion and mal nutrition, and a reliance upon Bismuth or Barium meal and X-ray.

The diagnosis of perforation of ulcer in the stomach or duodenum can be made soon if the previous history is carefully considered in connection with the acute symptoms. The most reliable are sudden shock, severe stabbing pain and rigidity over the effected viscera, vomiting, the pulse generally becomes rapid, feeble and irregular, the respiration becomes almost entirely costal.

In perforating ulcer of the stomach or bowels, whether acute or chronic, surgery becomes imperative, although spontaneous cures have been reported.

The treatment is early operation. Recoveries are rare after eight or ten hours have passed without surgical intervention. Open the abdomen through the right rectus muscle, above the umbilicus, find the perforation. Gently wiping off the surrounding area with swabs moistened in normal salt solution, in a majority of cases, excision of the ulcer is unnecessary. Close the ulcer with one or two stitches of catgut, infold the ulcer with two rows of continuous Lambert catgut sutures. Drainage to be used only in later cases. When deemed best a split tube or gauze wick should be used. Duodenal ulcers are almost always situated in the first two and a half inches of the gut.

The surgical procedure is similar to those of gastric ulcer, the line of suture should be made transverse to the long axis of the bowel and covered by an omental graft. In a very early operation, when the patient's general condition is good, it might be advisable to do more radical work in both gastric or duodenal perforation. Either excision, by knife or cautery, with or without gastro-enterostomy. Balfour's operation of cautery and gastro-enterostomy is gaining favor.

Acute Cholescystitis with or Without Calculi

It was formerly thought that the passage of calculi could be the only cause of severe pain but we now know that acute infection with more or less inflammatory reaction, can give rise to the same picture as though calculi were present.

In severe gall bladder infection, the most striking symptoms are great pain referred to a point corresponding to the outer position of the right rectus muscle close to the costal arch, radiating to the right shoulder, a temperature rise to 102-103, an increased pulse rate, a marked leukocytosis and more or less vomiting.

Over the tender area, the muscles are, or will soon become, rigid, indicating peritoneal irritation. In many cases a distinct ovoid swelling is to be felt, due to the tensely filled gall bladder. By hooking the fingers deeply from above, beneath the costal arch while patient takes a deep breath, great tenderness is elicited.

Percussion probably shows that the liver dullness projects below its normal limits, due to congestion of this organ. Icterus is usually absent but may be present in a slight degree. Chills and fever may recur at irregular intervals followed by profuse perspiration.

It is a well known fact that biliary calculi may remain silent for a long time either in the gall bladder or intra or extra hepatic ducts, as long as they do not obstruct the flow of bile.

Perforation of the gall bladder into the general peritoneal cavity does not give rise to the same severe initial symptoms as do perforation of gastric or duodenal ulcer. Many cases of acute cholecystitis can be carried over the critical stage into the sub-acute or chronic stage.

When operation becomes necessary, as in fulminating cases, the operation should be performed under Nitrous Oxide Oxygen and with local anesthesia, the abdominal wall should be opened over the exact center of the tender and rigid area regardless of where the gall bladder anatomically ought to be, but where the center of the infection is.

If adhesions extend down to the distended gall bladder, they should be separated with extreme care until the gall bladder is reached, so that an aspirating needle may be inserted. Then the adhesions should be separated only sufficiently to meet the absolute requirements, for a small incision and the establishment of drainage.

A split tube or rubber tissue is then inserted to establish drainage. If the wound incision is short, no stitches are used. After all the acute symptoms have subsided, and the temperature is normal and the patient in a fairly good condition for a few weeks, then a cholecystectomy should be performed.

Among the most urgent and serious pathological conditions we meet with is acute intestinal obstruction, mechanical ilius, producing strangulation occasioned by bands or adhesions, or through apertures, by volvulous, intussusception, by tumors or foreign bodies. It is said in about six per cent of all intestinal ob-

struction cases, Meckles diverticulum is at fault.

In every case, before a definite diagnosis is made, three points must be considered. What symptoms indicate obstruction? What is the seat of obstruction? What other symptoms simulate it?

The essential symptoms are colicky pains, localized contraction of the bowels, absolute constipation of gas and feces, constantly vomiting, first food, then mucous, then bile, and finally becoming fecal, gradual or rapid distension of abdomen, rigidity of muscles, visible peristaltic movements, often the presence of tumor, symptoms of shock and collapse, increasing pulse rate, pallor, cyanosis and dyspnoea. The urine diminishes and contains Indican, largely due to lack of fluid intake and the vomiting and to absorption of toxins.

The temperature is usually subnormal. We cannot expect much assistane from the X-ray. It is frequently impossible to diagnose the variety of obstruction.

Perhaps no condition requires more promptness, accuracy and good judgment than acute intestinal obstruction. Speculating and temporizing in the diagnosis frequently allows the patient to slip away.

Obstruction from hernia and intussusception may be reduced and foreign bodies may pass.

If we are reasonably sure of mechanical Ilius, an immediate operation should be resorted to. Delay of a few hours may be serious. Prepare the patient quickly, wash out the stomach, make the incision over the suspected region or in the median line, if the diagnosis is in doubt, find out and remove the trouble at once.

If necrosis is present, the dead tissue must be removed, otherwise a focus of infection will remain. If, however, the patient's condition be such as to render dangerous a more radical operation, in such a case simple drainage of the bowel and adjacent field is permissible.

In late cases, jejunostomy should be done under local anesthesia. First wash out the stomach, then a short incision should be made through the upper left rectus muscle and a high up loop of the jejunum is picked up and delivered, a purse-string suture is inserted, the bowel opened and a small drainage tube inserted a couple of inches in a downward direction, a retaining suture is put through the tube and purse string tied. A second purse-string suture is inserted half an inch or so from the tube invaginated and tied, then the intestine replaced to the abdominal cavity.

The bowel need not be sutured to the abdominal parieties. This will establish good drainage, stops vomiting and starts up peristalsis; stimulants and fluid nourishment may later be introduced through the tube.

Acute Appendicitis

We realize that the results secured by surgeons everywhere have improved, but it is still the most frequent and most treacherous of all acute abdominal pathologies. The order of symptoms is typical and known to us all.

Pain, colicky in character, and tenderness on deep pressure over McBurney's point or Morris' point, an inch below and to the right of the umbillicus, nausea, and vomiting, indigestion, and constipation, after a history of previous attacks.

In advanced cases, rigidity and great tenderness in the right lower quadrant, with rise of temperature and leucocytosis. The pulse shows but little change in the early stage, a wiry pulse and rapid rise of temperature, the pain and rigidity spreading toward the median line and to the left, together with repeated vomiting, indicates incipient peritonitis and perforated or gangrenous appendicitis, placing the life of the patient in immediate jeopardy, and calling for prompt surgical intervention.

It is generally known that bacteria are most numerous and have greater activity about the Ileo-caecal junction. It has also been proven that starvation will nearly render sterile the intestinal tract.

As a rule, in cases not far advanced, will show an abatement of symptoms one after another on withholding food and water, and arrest peristalsis. A deplorable habit or custom of the layity and of many physicians, is the administration of purgatives, "to clean out the patient."

Very frequently, a few hours after the administration of a laxative dose, the patient is seized with greater agony and renewed vomiting, with rapidly spreading tenderness and tense rigidity of the abdominal muscles, tymany and a rapid, wiry, pulse, indicative of acute peritonitis.

On opening the abdomen, we too often find a gangrenous or perforated appendix, pouring out a thin, toxic fluid, and occassionally liquid feces into the belly cavity.

I agree with some of our ablest and most experienced surgeons that gangrene or perforation of the appendix, followed by peritonitis, is generally caused by purgatives and taking of food and drink that excites peristalsis.

Moynihan's Poem

"Perforation means purgation
With appendix kinked and bad,
Both food and drink will worry him
And aperients drive him mad."

The cause of death from appendicitis is infection, local, general, pylephlebitis or bacteraemia. If the latter has once been established, we have no successful remedy, our pur-

pose is to prevent it by prompt and early operation.

The incision should be made over the center of the most tender and rigid area, always intermuscular. In a great majority of acute appendicitis, the appendix is safely removable. If there is a well walled off abscess, it should be carefully opened in the center of the mass. If the appendix is readily accessible, it should be tied and cut off. Avoid as much as possible the breaking up of adhesions.

If pus is free and no walling off, appendix readily found, it should be removed, the area should be carefully mopped out with gauze moistened in normal hot salt solution, and fair sized cigaret drain should be carried down to the left side of the pelvis and one in the operation field.

When an appendicitis has developed into a localized abscess, it should be dealt with as such. When feasible, it is best to remove the appendix, it will facilitate recovery and prevent recurrences.

The pathology should be attacked instead of being defended.

¶ Tuberculosis of the colon is very rare. It is usually primary in the submucosa, being in that instance a blood borne ailment, or it may extend upward from tuberculous hemorrhoids, or perirectal tuberculous fistula.

¶ The history in parasitic patients is not one of gradually established obstipation, but generally one of periodic or continuous diarrhea, frequently with the passage of stools stained with freshly passed blood.

FALLEN IDOLS

Lowe W. Wren.

Remember, Love, we chose our gods
From youth's engaging mart—
And you throned yours with passion, Love,
And I crowned mine with art;
And both had all the heedless flame
That fires the youthful heart.

Then came the sage and gravely said,
"Old gods give way to new."
But how we swore with fervered lips
Our gods should e'er be true!
"'Tis Worship that grows cold," you said.
And I loved only you.

Yet life now proves the sage's words—
The cynic years rejoice.
And often, my Beloved, I hear
This echo of your voice:
"Just one by one, foredoomed to fall,
Each idol of our choice!"

X-RAY FINDINGS AND COMBINATION CHEST CONDITIONS OF CHRONIC GASSED CASES, VERSUS TUBERCULOSIS

DR. CHAS. E. FITZSIMMONS, Kansas City.

THERE is a belief among the large majority of the laity as well as some of the profession, that those who have been gassed must of a necessity at some future date develop tuberculosis of the lungs. Because of the supposed weakened condition of the lungs resulting from the inhalation of irritant gas.

The statistics of this paper are accurate so far as physical examination and X-ray findings are concerned. But we were compelled to depend on the histories and statements of these patients as to whether they were, or were not, gassed. There being no way at our disposal to prove or disprove the correctness of these statements.

This paper is a resume of a few hundred gassed cases and chest conditions with special reference to X-ray findings of chronic gassed cases.

I have been fortunate enough to see these gassed cases in all stages, having had some research work while with Field Hospital No. 3 near Boveay, France, while attached to the First Division. On May 3, 1918, there were 816 men of the First Division gassed with the combination gas which was occasionally used. Chloropicrine, Chlorine and Mustard. Two hundred and forty of these cases were cared for by Field Hospital No. 3.

Eight of these gassed cases died of Traumatic broncho pneumonia within from three to eight days. Two-thirds of these cases returned to duty within twenty-one days, apparently completely recovered from being gassed and resumed their duties with their organization. One-third of these cases suffered from extensive external burns, and were evacuated to Base Hospital and there lost sight of. Postmortem findings on the eight fatalities of the two hundred and forty gassed cases treatd by Field Hospital No. 3 showed extensive lesions of the trachea and larger bronchi, and marked ulceration and destruction of tissue to such an extent that the cartilaginous rings of the trachea were bare at certain areas. Whole lingings or casts of the bronchi were coughed up by some of these patients. The smaller bronchioles and alveolar did not seem to be involved other than the usual pathological conditions found in Traumatic broncho pneumonia with the exception of occasional areas of atelectasis and emphysema due to closure of the bronchioles.

Read before the joint session of the Missouri Valley and Southwest Medical Association, Kansas City, Mo., October 25-28, 1921.

In the past fourteen months we have rayed at the U. S. Veteran's Hospital No. 67, some 5,600 cases, 3,600 of these were chest conditions. Twenty per cent of these cases or about seven hundred and fifty gave history of being gassed. These 3,600 cases include all chest conditions rayed at this hospital, including both hospital cases and out-patient clinic cases.

The three most important gasses concerned in producing tissue changes of the lungs are first Chlorine, second Chloropicrine, and third Phosgene. Contrary to the popular opinion, Mustard has very little effect on the lung tissue. Its direct action being on the surface of the body causing extensive external burns.

A summary of the action of these most important gasses:

FIRST:

Chlorine, the most important, affects the mucous membrane with which it first comes in contact, causing dissolution and ulceration especially of the trachea and larger bronchi. Especially is this the case with the upper respiratory passages. On recovery the epithelium is restored, and the trachea returns to normal, except for deposition of scar tissue or peribronchial fibrosis, termed peribronchial thickening as demonstrated by X-ray findings. Usually this occurs in the larger bronchi, rarely in the distal bronchioles or alveola of the lungs, causing desqumation of the alveola epithelium, and focal areas of necrosis.

SECOND:

Chloropicrine acts the same as Chlorine but to a lesser degree. Chloropicrine must be broken into residue and Hydrochloric acid before tissue is attacked. This gas becomes effective only after it reaches a part of the lung where moisture can be found, as for instance the medium and small sized bronchi of the mid and peripheral zones of the lung. Here it causes the same tissue inflammatory changes as produced by Chlorine. Usually when the wall of these small brochi are seriously injured active proliferation of fibroid tissue occurs, the cavity is filled with granular tissue and a obliterative bronchilitis results with consequent atelectasis or localized empsysema.

THIRD:

Phosgene the most important of all gasses used as far as the effect on the lungs is concerned, acts chiefly on the lining epithelium of the small bronchi and bronchioles. The upper air passages escape almost entirely, this gas involving the lower and middle portion of the lung. Phosgene, being the most stable of the irritant gasses, on reaching the moisture laden air passages is broken up into Hydrochloric acid and residue, only in the smaller bronchioles and alveolar of the lungs. Here it has its specific action, causing fibrous tissue proliferations to such an extent that it may occlude the small bronchioles producing localized atelectasis or localized emphysema. This condition may remain permanent, as demonstrated by X-ray findings. I recall one case in the past year where this condition was demonstrated beautifully by X-ray plates, there being bronchial stenosis with atelectasis and localized emphysema, the result of gassing in Argonne Forest.

The X-Ray findings in these conditions of chronic tissue changes of the lungs produced by irritant gasses, show changes closely resembling those found in pneumonoconiosis.

Group I

Using as a standard Pentacost's classification known as the stage of irritation. We find a proliferation of fibrous tissue especially around the bronchi and bronchioles, technically termed peribronchial thickening and demonstrated by X-ray findings. These bronchial markings are exceptionally prominent, radiating or branching from the hilus, extending from hila zone through mid zone but not through peripheral zone. This latter only occurs in exceptional cases. These bronchi and bronchioles are demonstrated clearly on X-ray plates, standing out clear and distinct, there being no haziness or mottling to confuse the picture. This radiation is symmetrical and not confined to one lobe, nor is the upper respiratory passages of the lungs more involved than the lower respiratory passages. It reaches out from both hila and is equal on both sides. As a rule more of the branching is visualized toward the middle of the right lobe and the lower portion of the upper left lobe. Due to the overlying heart shadow the X-ray findings of the chronic tissue changes of the right hemithorax is apparently more extensive than the left hemithorax. This branching or peribronchial thickening reaches in some instances well out in the peripheral zone. Occasionally you will find an opaque area of decreased radiation due to localize atelectasis, or you will find an area of increased radiation due to localized emphysema.

The two special ways the X-ray findings of these chronic gassed cases differ from pneumonoconiosis, are: first—the hilus shadow is usually not enlarged, unless its enlargement when present is caused by chronic bronchitis, which is not at all uncommon in these cases. Second —there are no small areas of mottling and no diffuse shadowing which give the characteristic appearance of dust inhalation.

Diagnosis of chronic gassed cases from tuberculosis is not at all difficult. The distribution, the uniformity, and the absence of the areas of consolidation are the main diagnostic points. However, when small areas of atelectasis or emphysema occur, particularly in the upper thorax, they may confuse the diagno-

sis. In this case one must pay more attention to the clinical history of the case in question.

To demonstrate the various combinations of these chest conditions with which the Roentgenologist is concerned namely first: gassing; second, chronic bronchitis; third, tuberculosis; fourth, influenza. There is presented the following classification of 1654 patients examined at the U. S. Veterans' Hospital No. 67 during the year of March 1, 1921, to February 28, 1922, with reference to chest conditions, classified according to their clinical histories and pathological conditions as demonstrated on physical examination and verified by X-ray findings, we have the following four groups of cases:

Group I—Tuberculosis

There were 284 positive cases of tuberculosis; 45 of these cases were gassed; 82 of these cases had influenza; eight of these cases gave history of being both gassed and of having had influenza; 149 of these cases, or fifty per cent of the positive turberculosis patients had no history of ever being gassed or ever having had influenza.

Group II—Gassed Cases

One hundred and forty-five definitely stated they had been gassed; 45, or one-third of these patients developed tuberculosis; 56 of these cases developed chronic bronchitis; 44, or one-third of these patients are suffering no bad effects of being gassed so far as symptoms of disease of the chest are concerned.

Group III—Influenza

Three hundred and fifty-seven cases claimed to have had influenza; 82 of these cases or one-fourth developed tuberculosis; 92 of these cases developed chronic bronchitis; 183 of these patients, or one-half of these cases who had influenza have no apparent after effects, or symptoms so far as disease of the chest is concerned.

Group IV—Both Gassed and Influenza

Twenty-one of these cases gave history of having been gassed and also of having had influenza; eight of these cases developed tuberculosis; ten of these cases developed chronic bronchitis, and three of these cases show no after effects or symptoms so far as diseases of the chest are concerned.

I sincerely hope this grouping of the above conditions will assist in demonstrating the various diagnostic combinations of chest conditions with which the Roentgenologist is daily concerned.

I do believe these statistics of chest conditions are in harmony with the now popular belief that gassing or chronic tissue changes resulting from inhalation of irritant gas, do not especially predispose or favor tubercular infection of the lungs, as was once supposed, but, to the contrary with the existing fibrous tissue changes of the lungs, are less liable to become infected with tuberculosis than would usually occur under conditions of lowered resistance, minus these fibrous tissue changes.

Finally,

Is it not a fact that stone cutters, quartz miners and those suffering from pneumonoconiesis, that is chronic, fibrous tissue changes of the lungs, resulting from inhalation of irritant dust, are practically immune to tubercular infection? This being the case, does it not seem plausible that chronic tissue changes of the lungs resulting from inhalation of irritant gasses would have the same inhibitory effect to an invading tuberculous infection, as do these cases of pneumonoconiosis or fibrous tissue changes of the lungs resulting from inhalation of irritant dust?

I thank you.

THE TREATMENT OF APPENDICITIS BY X-RAY

W. L. ROSS, M. D., Omaha, Neb.

IN the following remarks I will firstly, state a few facts. Secondly, briefly recite two or three cases.

Firstly: You are familiar with the effects of the X-rays on the lymphoid tissues of the body and know that with care and suitable dosage the lymphoid tissues can be destroyed without appreciable damage to other tissues. The X-rays relax spastic muscular action and also ease pain.

The appendix, as described by the W. G. Davis applied anatomy, page 414, has three sets of lymph capillaries, viz.:

1. A superficial or subperitoneal set.
2. Another set between the sub-mucosa and muscular layers.
3. A deep set in the mucosa around the glands of Lieberkuhn.

Doctor E. H. Skinner, in his concluding remarks in his manuscript on "The Roentgenology of Appendical Obliteration," makes the following statement:

"1. The appendix is a functionating organ.

"2. It is a lymphoid structure.

"3. It receives and expels colonic contents normally during childhood and adolescence.

"4. It proceeds to physiologic obliteration in adult life.

"5. This obliteration is normally accomplished at about the age of 30."

For convenience of discourse I will speak of two types of the diseased appendix.

Type 1. The chronically diseased appendix ith exacerbations of pain and tenderness at ort or wide intervals.

Type 2. The acutely infected appendix.

Type 1 is characterized by more or less dull in with an occasional exacerbation of symp- ms which may or may not compel him to ke to bed. Tenderness to pressure over the ppendix can be elicited at all times during the uiescent period. The clinical history gener- ly reveals a disturbed condition of the system milar to that of local foci of infection in other arts of the body.

Clinically, the effects of the X-rays in this ype of case are to relieve the pain and tender- ess, also to relieve the spastic contraction of he caecal orifice, and to allow drainage to take lace into the caecum. By destruction of the mphoid tissue of the appendix, atrophy and bliteration of the lumen of the appendix takes lace and the patient is relieved permanently. he following case illustrates type 1:

Mrs. J. B., age 35, married, consulted me on uly 9, 1915, complaining of dull pain in the ppendix region. Pain is constant and does ot move about. Either riding or long walk- ng aggravates the pain. She has a disturbed ondition of the stomach and has lassitude ost of the time. She is constipated. She oc- asionally has an afternoon temperature. She s tender to pressure over the appendix.

I commenced Roentgen Ray treatment. From July 9, 1915, to October 6, 1915, she was given thirteen treatments. At the end of this time she was free of all pain and tenderness in the appendix region, and she has since remained free of any appendix trouble.

Type 2. I have always commenced treat- ment of this type with more or less fear and trembling, but quick and marked relief of pain and tenderness has uniformly been the result in all my cases. The last case I have treated illustrates the second type, that of acute infec- tive appendicitis.

Mr. E. N., age 17, came to my office April 15, 1922. His chief complaint was marked pain and tenderness in the appendix region. Pain had commenced April 13 and had grown worse. Pain was continuous. Patient felt weak and walking aggravated the pain. He could not stand erect. He had loss of appetite but had not vomited. He had been confined to his bed from 10 a. m., April 13th until April 15th, when he came to my office. The trip to my office had made the pain much worse. Pa- tient looked toxic and very sick.

Temperature, 96½; pulse, 60; resp., 16; tongue was coated. Physical examination re- vealed a board like condition of right abdominal parietes. Slight pressure over the appendix increased the pain.

Blood count showed: Red blood cells, 5,- 704,000; white blood cells, 15,400; Polymor- phonuclears, 82 per cent.

At 12:30 p. m., I gave him an X-ray expos- ure of five milliamperes, 76 kilovolts or an 8- inch back up, 6 millimeters of filter, 13-inch skin distance for 8 minutes. He then returned home. At 8 p. m. the same day, I visited him. He was lying quietly in bed. Pain was much less. That night he slept from 10 p. m. until 5 a. m. The next day, April 16th, at 8:30 a. m., he came into my office, walking erect and with but very little pain.

Tenderness to pressure was markedly less. He was given another exposure, the same tech- nique as previously given. At 8:30 that even- ing I visited him again. He was quite free from pain except when he moved about in bed.

April 17th he came to the office again. He suffered but little pain while riding in the au- tomobile. He looked less toxic but complain- ed of feeling weak. The board like condition of abdomen was markedly less. He said he had very little pain and could walk without pain.

Blood count showed: Red blood cells, 6,232,- 000; white blood cells, 9,600; polymorphonu- clears, 75.3 per cent.

April 18th at 2 p. m., he came again to the office. He said he did not feel any pain. Deep pressure elicited some tenderness. He did not look toxic and his color was normal. He felt hungry and did not complain of feeling weak.

April 19th, 11:30 a. m., patient came to my office. He slept good the night before. The trip to the office caused no increased pain. Walking did not cause pain. At times he has a dull pain but it lasts only a minute. Some tenderness to deep pressure. He can bend over and touch his shoe while sitting and without pain.

Temperature, 97.8; pulse, 56; resp., 16.

Patient is very hungry.

Blood count: Red blood cells, 6,304,000; white blood cells, 8,800; polymorphonuclears, 65 per cent.

Advised patient to return Saturday, April 22, for another X-ray treatment.

I have treated in all 50 cases since 1914. Thirty-four of the chronically diseased type, and 16 of the acutely infected type. Of this number, seven have since been operated upon.

Three of these I operated:

One of the first type (the chronically in- flamed appendix) I operated about 6 months after the last treatment, because of incomplete course of X-ray treatment, patient having taken four treatments then stopped for 17 months and took four more. Six months later she was operated upon because of return of vague pains. This appendix was found to be somewhat smaller than common.

Another of this type, I operated 21 days after the last X-ray treatment. This patient was symptom free but her home was in the mountains of Arizona, far from hospital convenience, and her husband insisted upon her having her appendix removed before leaving Omaha. The appendix was pale in color. It was about one-half the circumference usually found. I did not have this one sectioned by a pathologist but a gross section showed the lumen obliterated.

One of the second type, I operated upon 13 days after the last X-ray treatment. Although the patient was symptom free, he was afraid of a relapse, and inasmuch as he was going to leave the city for some time and would not have access to the use of the X-ray or even hospital facilities, at my suggestion he consented to having his appendix removed.

I had six sections made of the appendix and will show one. It is typical of the other five sections. It shows a marked narrowing of the lumen of the appendix.

Of the other four cases, operated, one of these was a boy of 12 who lived in the country and did not continue treatment long enough. Six months later he relapsed and was hurried to the hospital and operated.

Another relapsed about one year after the last treatment. This relapse, I believe, was due to faulty technique.

Another, a young man of 21 enlisted in the army soon after his last treatment and was required to have his appendix removed.

Another, a young lady of 19 had her appendix removed about 6 months after treatment. Just why, I have been unable to learn..

In conclusion, I wish to state:

1. With proper dosage the pain of appendicitis can be quickly relieved.

2. Spastic contraction of the caecal orifice of the appendix is relieved.

3. The lymphoid structure of the appendix can be destroyed and obliteration of the lumen of the appendix produced.

¶ Our old familiar Ammonal tablet has received another blow at the hands of the J. A. M. A. They claim it is "misbranded, false and fraudulent."

¶ After all is said and done, the prime cause for removal of the tonsils is hypertrophy, resulting in obstruction. Infected tonsils causing trouble come next.

The appointment of a committee of fifteen to inquire into the subject of narcotic conditions is timely and wise.

ULTRA VIOLET ENERGY IN DISEASE OF BONE

A. J. PACINI, M. D.
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THERE is a biophysically established fac that Ultra Violet energy, such as is d rived from the modern Quartz mercu vapor lamp, induces in exposed individuals rise in the blood content of phosphorus an calcium (1, 2, 3 and 4). Upon this fact, th preventive and curative qualities of Ultra Vi let radiation in rachitis depends; and the r cent attention of the most prominent pedi trists to the problem has occasioned muc scientific writing in the medical press culmi ating in a tacitly implied demand for researc investigation that will point the way for th application of the quartz lamp in the clinic solution of allied problems.

Barker (5) conveniently subdivides his co sideration of diseases of bones into the follow ing headings:

I. The congenital osteopathies.
II. The degenerative, the toxic, and th endocrinopathic osteopathies.
III. The osteopathies of circulatory origi
IV. The inflammatory osteopathies.
V. The neuropathic osteopathies.
VI. The parasitic osteopathies.
VII. The neoplastic osteopathies.

In this group, those conditions listed a degenerative, toxic or endocrinopathic oste pathies show a deficiency in the metabolism c calcium, or phosphorus, or both; and in thes conditions, the biologic energy derived fro the Air Cooled mercury vapor lamp is esser tially helpful.

Method

Studies leading to the consideration of th quality of the Ultra Violet spectrum necessar to effect calcium and phosphorus increase i the blood have elsewhere been submitted an should soon appear in print. Pambrun aptl speaks of this spectral quality as "spectra formula;" and we are now convinced that eac type of pathology amenable to Ultra Viole therapy requires its specific "spectral formula to insure maximum efficiency in clinica result. (6).

Calcium and phosphorus is influenced mos by the Ultra Violet spectral region include between 3022 and 2600 Angstrom units; a re gion which is most intense in the Air Cooled lamp operated under the following character istics:

Voltage across burner.....70
Tube-skin distance .....40 inches

At this voltage, the region discussed is at its best; and the tube-skin distance is pur-

osely 40 inches to insure that shorter wave ngths, which are antagonistic to calcium and osphorus deposition, are obliterated by passg through much air.

With the above characteristics of lamp opation, the nude body, or as much of the body propriety and other conditions will permit denude, is exposed, at the first treatment,

	Light types	Dark types
fants	½ minute	¾ minute
hildren	1 "	1½ "
emale adults	1½ "	2 "
ale adults	2 "	3 "

Each day the radiation is increased as fols:

Infants, children—½ minute.

Female adults, male adults—1 minute.

Eyes should, of course, be screened against e rays to prevent conjunctivitis. The raations are continued daily until the X-Ray udy of the bone, or the clinical observation the case, indicates maximum recovery. romptness of recovery and degree of benefit rived are contingent upon the character and verity of the pristine pathology.

Conditions Treated

Osteoporosis. When, for any reason, a part immobilized, the disuse leads to an atrophy the bone that likewise suffers immobilizaon. This osteoporosis of disuse, as the conition is called, is frequent in fractures and all forms of arthritis. It is quickly realed under XRay examination and is a factor at militates against the prompt calcification d ossification of a fractured part.

So that the better to assist reunion and reification of a fractured bone, and as a prentive against the fragility that disused bone rts acquire incident to immobilization, the ltra Violet energy serves an excellent purse. In general, such conditions as show, der X-Ray examination, bone atrophy or teoporosis (7), are those in which Ultra olet energy, used as described, is helpful.

Rickets. The characteristic skeletal changes rickets are too well known to require comnt: as is, also, the brilliant work of Hess, wers, Shipley et al who have afforded a eat contribution in the progress of therapy their unchallageable studies on the prentive and curative effects of the Ultra Vio energy in rickets.

For rickets, as for all conditions in which ne changes are present, the method of treatnt is systemic, that is, general irradiation discussed under method.

Achondroplasia. Formerly known as fetal ckets, achondroplasia is a disturbance of e skeleton occurring during fetal life. Its tiology is unknown. It is characterized by micromelia (undersized limbs), which comes from a premature closure of the long bone epiphyses.

Infants showing achondroplasia, which must be differentiated from rickets (in which the ossification is delayed instead of premature); from thyroaplasia and athyreosis (myxedema symptoms); and osteogenesis imperfecta (X-Ray plates; frequent and multiple fractures); if exposed to Ultra Violet energy, assume a renewed calcium and phosphorus activity that has led, in some cases observed clinically, to a general re-establishment of bodily proportion tending completely to eliminate the micromelic deformity. There is an instance somewhere recorded of an intra-uterine diagnosis of achondroplastic fetus of eight months arrived at through anthropometric X-Ray examination of the mother. Ultra Violet irradiations of the mother two weeks before delivery resulted in an infant of practically normal limb measure. It is interesting to think of the possibility of precluding a "rickety diathesis" in the child by Ultra Violet irridation of the mother.

Osteogenesis Imperfecta. This, Lobstein's disease, is a condition in which the bones are found to be exceedingly brittle. Fractures follow even trifling injuries. It is a dominantly minus calcium-balance entity. It is especially amenable to Ultra Violet radiation.

Schabad, says Barker, studied a 7-year-old child with osteogenesis imperfecta and found a deficient calcium retention. In addition, he obtained improvement under cod-liver oil therapy. Obviously, in the light of the recent studies of Hess, it is clear to understand now why Ultra Violet is almost a specific therapy in the treatment of this obscure bone disease.

Osteomalacia. Much dispute exists as to whether or not osteomalacia is, after all, an aggravated form of rickets. Clinically, it is well to realize that the condition affects women in the reproductive age, usually after they have born children (puerperal osteomalacia); and that Ultra Violet energy corrects the disorder. It should be applied during term, when the calcium needs of the fetus challange the calcium metabolism of the mother, thereby insuring a stabalization of the calcium metabolism and averting osteomalacia in the mother; rickets and osteogenesis imperfecta in the child.

X-Ray and Ultra Violet

We see at once that the X-Ray study of bone leading to the X-Ray inference of deficient calcium function, is a definitely certain clinical index for the use of Ultra Violet energy. Possibly, the various calcium and phosphorus dystrophies affecting bones all arise

from an aberrancy similar or identical to that including rickets; and in the Ultra Violet energy, from its proved action of increasing calcium and phosphorus metabolism and its equalizing regulation of normal ossification and calcification, is a virtual therapeutic specific for the remedy of pathology derived from such causes.

Summary

1. Reference is made to the proved property of Air Cooled Ultra Violet energy (biologic) in increasing the calcium and phosphorus content of the blood (and serum).

2. There is an important "spectral formula" required to effect this property; to obtain which the tube voltage (70 volts), tube skin distance and exposure factors for various individual types are offered.

3. Conditions treated with striking clinical improvement include:

Osteoporosis,
Rickets,
Achondroplasia,
Osteogenesis imperfecta,
Osteomalacia.

4. X-Ray evidence of bone radiolucency indicating osteoporosis from whatever cause is a clinical index for the use of Ultra Violet energy.

BIBLIOGRAPHY

1. Hess, A. F., and Gutman, B. B.: Jour. Amer. Med. Assn., 78-29-1922.
2. Drummond, J. C., Coward, K. H., and Watson, A. F.: Biochem. Jour. 15-540-1921.
3. Kramer, B., and Tisdall, F. F.: Jour. Biol. Chem. 47-475-1921.
4. Tisdall, F. F.: Jour. Biol. Chem. 50-329-1922.
5. Barker, L. F.: Monographic Medicine.
6. Pacini, A. J.: Some Principles Pertaining to Ultra Violet Usage, Medical Herald, August, 1922.
7. Pacini, A. J.: A Concept of X-Ray Pathology. V. Osteopathy. Medical Record, February 5, 1921.

PITUITARY POETRY

"All through the animal world, in the springtime, when the pituitary awakens or increases its secretions, and so stimulates the sex glands to augmented activity, emotions of sex and their expression are provoked by the inner stirring."

And whirring and purring, 'n' everything.

"When the nightingale warbles passionately" (this is medical stuff—listen) "and the mocking bird gurgles provokingly, when the robin fills its scarlet breast and the startling floats in ecstasy through the perfumed air, when the pigeon"—(there's a lot about

The pigeon cooing

And the gaudy butterfly wooing with dazzling multicolors)—"when the marvelous devices of sex-attraction in nature, selection and courting," etc., etc., "who but must wonder at the infinite possibilities of reaction of the sex harmonies."

It's a mixed gland—

See?—It's the poetry of the princely pituitary pouring passionately in the spring,

Or in anything!

IT GIVES US PAUSE

The suicide list for 1921 was unusually high. The doctor's list was the highest—86; millionaires, 76; judges, 57; bank presidents, 37; clergymen, 21; editors, 10. Why do doctors commit suicide? Malpractice? Corrupt mentality? Overwork? Financial losses? Conjugal duplicity? Narcotics?

Carpings of the Cynic

EVOLUTION

There are Many Doctors
Who
When they Began to Practice
Rode a Bicycle
To Make their Professional Calls,
'N'ev'rything.

After
A Year or so
Of
Careful Prognosis
A Horse and Buggy were Acquired.—
You Remember?
This
Was Advancement!
And,
As Prosperity Further Sought You
To
Mark You For her Own,
'N'ev'rything,
You
Surreptiously
Opened Your Chest, Took your Pieces of Eigh
And Put
Them
In the Bank.

About this Time, too,
You
Began to Oscultate the Beautiful Motor Car
A Ford
Sounded Like a Grand Piano,
Only
Louder!
In no Time at all
You
Contracted the Disease.
You
Drove the Ford
About Thirteen Thousand Miles
When You
Took a Fever,
With
Hallucinations—
'N'ev'rything.

What was the Etiology?—
A
Bran New Buick
Cured You!

In
About Two Years' Time or Better
Your Bank Account Again Became Constipa
And Your Station
In Life
Cried Aloud
For a Longer Wheel Base,
For More Power and More Reserve;
A Quicker Getaway,
'N'ev'rything.
Your Boy
Was now big enough to Occupy the Se
By Father.
So You Again
Took Down With a Fever,
And
In Your

Deliriumesness
You
Bought a Cadillac, Oh Boy!
Trading in
The Old Car
For Three Dollars
And Six Bits.

Now About this Time
You
Grew Fond of Sitting Around the Hospitals
Listening
To the Golf Hounds
Bark.
So
One Day
One of the Fellows
Who
Should Have Known Better
Took You Out
Where the Percussion was Most
Ethical.
You
Immediately
Joined the Open Air Clinic
And
Ordered
A big bag of Golf Implements.

Recently
You were Listening-in
Very Intently
On a Swell Radio Account of a Doctor
Who Daily Rode to his Farm in an Aeroplane.
Your Wife
Spoke to you Three Times
But
You were Unconscious.

Diagnosis?
No Earthly Hope!
Flowers and Slow Music!
Darwin said
We Had to Have
A
Missing
Link!

—H. N. J.

RUMBLINGS

This Compulsory State Supervised, Industrial, Social, Health Insurance thing has been introduced in fifteen states and passed in none. Doctors should get their ear to the ground and their representatives into the legislatures.

The law has been drafted and pushed by the American Association for Labor Legislation and provides that all employees earning less than $100 a month shall be entitled to medical, surgical, hospital and nursery care, dental treatment, maternity benefits and funeral allowance. Doctors should guide this bill through the legislature to see that there are no jokers or riders and that it really is passed to benefit the poor man and does not become another Harrison Law around the neck of the profession.

To the average (a)pathetic, drive-burdened physician at first blush, it would seem that these high-powered, overpaid captains of industry might afford to take less salary and let the poor cuss be raised to over $100—say $100.50, and let the already harassed, hamestrung, hunted, haunted doctor out of this burden.

TWO STORIES AND A PREACHMENT

Two war stories that illustrate a medical phase may be related. The first one is an old story concerning the United States patent office immediately following the Civil War. An important patent had often been up for discussion among the clerks in the patent office at Washington. It was looked upon as the ultima Thule. Finally, one day, the correct model was received and the patent granted. Amid the buzz and the excitement in the office one of the clerks appeared before his chief with his resignation. In surprise he was asked why he should wish to resign. His reply was that now since this patent had been granted there would not be any more important inventions and he felt he ought to be looking out for another job. (Since then we have had all the big surprises in the field of invention.)

The other story is this:

During the World's War a man came up before the examining board. He was very anxious to be excused on the ground of his being an expert mechanic and was needed in the great establishment where he was employed. Finally he was pinned down to relate his job just to see if it were possible that another might take his place in such skilled capacity. So he was asked as to what particular skilled labor he performed. He answered that for years his job was to turn screw number 49.

The application is this: If you, doctor, have seen the end of the medical profession,—this noble profession on the rocks and the "board of public censure" examining it to see if some good chiropractic or christian scientist could not turn screw number 49, or any other loose screw; and doctor, if you, after practicing eleven or thirty years, are beginning to look around for some other job—just take off the blinkers a moment and wipe the glasses good and let's have a look-in at the new situation.

Oh, my! Oh, me!

We just have been playing on the shore, picking up shells, and have not even got started.

If Diphtheria antitoxin is such a wonderful, absolutely proven, god-send, and Typhoid vaccination a positive success in the armies of the world war; and not a ghost of a chance for Small Pox to ever again decimate armies or wipe out cities; and Malaria is conquered, etc., etc.—

If these proven things are possible, what may yet be accomplished?

Don't close your office then, doctor, and don't buy up any more oil stock and stay right

on the job and sit tight and smile and look pretty and stay dressed up and don't knock and don't run down any school or anybody and just keep right on sawing wood and doing the best you can as always, giving everybody a square deal and a run for their money, and, if you want to, just rest up a little, and mark time while you read up a little on physiologic chemistry and the endocrine system and electricity, and a dozen other new lines of work being carried on right now. Your eyes will then open and you will see that the medical "patent office" is just ready to begin doing business, and never even thought of closing—was just remodeling a little; and after that, after the clerks are assigned to their new stations, there won't be enough jobs to go 'round and we will be advertising for honest-to-god doctors and the "experts" will **still be turning screw number 49.**

Now's the time to read and to study and to do more publicity. Get in the new game. Hold on to your money. Play safe. Don't lose your head. Buy first mortgage farm loans and let the wild-cat-take-a-chance-nothing-ventured—nothing-gained-you-can't-lose-proposition— let them all alone, absolutely. Attend medical meetings, take a summer course, get some electrical equipment and read the new medical stuff like'l.

"Honest toil today has passed
Through Time's refining fire,
And he who now both works and saves,
Is worthy of his hire."

Harry Nelson Jennett.

GROUP PRACTICE

Mr. Michael M. Davis, Jr., chief of the Service Bureau of Dispensaries and the Community Relations of the Hospital of the American Hospital Association, New York, says:

"The group practice scheme, organized and directed by some body of men who are interested financially and medically in its work, is almost certain to run upon the rocks because it is inherently ill-founded."

Do you believe in birth control? The more intelligent class of people today practice it, the less intelligent do not. What effect will this have on the race in the next few more generations?

Are you ready to accept the modern idea that anti-syphilitic and gonorrheal prophylactics are identical with prevenceptives (birth control)?

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

STUFFED CAPSULES

¶ Radiant Light and Heat is an excellent first aid in acute earache and often the only treatment required

✣ ✣ ✣

¶ Irritating lotions and nasty ointments have had their day in eczema. Prompt results usually obtain from the proper application of actinic or X-rays.

✣ ✣ ✣

¶ Eye strain without refractive error or muscular imbalance is often relieved by the application of galvanism.

✣ ✣ ✣

¶ The principal difference between neuralgia and neuritis is that the former has no pathology and in the latter there is a distinct pathology.

✣ ✣ ✣

¶ The best treatment for acute pleurisy is diathermy.

✣ ✣ ✣

¶ Rheumatism is the most abused word employed by the laity and often physicians are also guilty.

✣ ✣ ✣

¶ A felon before the formation of pus may be aborted by an erythema dose of roentgen rays.

✣ ✣ ✣

¶ Styes before pus formation may be aborted by the high frequency current through a vacuum electrode.

✣ ✣ ✣

¶ Acute aphonia is often relieved by diathermy.

✣ ✣ ✣

¶ Formalin For Foul Feet.

MEDICAL LORE

¶ Over 2,000 years ago, Aristotle said, "Probably all art and wisdom have often been already explored and again forgotten."

—o—

¶ No less than Galen himself believed in conjurations.

—o—

¶ Quintus Serenus Samonicus wrote a book on Materia Medica in which he advised the wearing of amulets to charm away intermittent fever.

—o—

¶ Over 4,000 years ago, the Chinese reduced to writing descriptions of syphilis and recommended mercury in its treatment.

—o—

¶ Over 2,000 years before the Christian Era Hoang-ty described syphilis as consisting of three stages and that the disease was transmissible to children who were unborn; that the snuffles was a symptom of inherited syphilis. He also referred to bone syphilis which made the victim's life miserable.

—o—

¶ The first uranalysis was probably made by the priests of India.

—o—

¶ Hippocrates urged the examination of urine upon which he often based his prognosis.

—o—

¶ During the 15th century syphilitics were banished from Paris like lepers from Jerusalem.

—o—

¶ Abdominal surgery was practiced hundreds of years B. C. A novel method of suturing the gut was employed. Large ferocious ants were laid on the cut surface of the gut and as the ant nipped the two edges, its body was severed from the head, the nippers left behind served as sutures holding the edges in apposition.

Necrological



A REVIEW OF THE LIFE OF J. N. SCOTT, M.D.

By HAL FOSTER, M. D., F. A. C. S.,
Kansas City, Mo.

IN attempting to pay tribute to the memory of Dr. J. N. Scott, my late colleague, who died at his home in Peabody, Kansas, July 24, 1922, I will have the sympathy of the Kansas City medical profession. We shall all agree that it was a useful and honorable life and we can gather much from it, virtues which may guide our own lives.

Dr. J. N. Scott was born near Galesburg, Ill., July 29, 1870, moved to Peabody, Kan., with his parents in 1882, attended the Peabody school, entered the Kansas University in 1886, graduating from the Kansas University School of Pharmacy in 1889. He spent about two years in New Orleans, Topeka and Chicago in the study of practical pharmacy, came to Kansas City, Mo., in 1891 and entered the University Medical College and acquired the degree of M.D. in 1897.

Immediately following his graduation he took up X-ray work, taking post-graduate investigation in New York. He then went abroad, continuing studies in his chosen field. On returning to this city he at once began the practice of medicine, limiting his practice to X-ray Therapy. He established the first radiographic laboratory in Kansas City. He had a genius for hard work and was the first physician in this city to engage in that line. By his kind, polite manner both to physicians and patients and conscientious attention, he immediately took a prominent stand and had a very large practice, daily seeing and treating a great many patients.

For a time he was professor of Electro-Therapeutics in the University Medical College. He was a staff member of St. Joseph and Bell Hospitals until he was incapacitated. When the Kansas University opened its Medical Department here he held the chair of Electro-Therapeutics until he was forced to resign owing to ill health.

He was nearly six feet in height, handsome and fond of outdoor life, being a golfer, a good shot, also fond of fishing, automobiling and swimming. He was a ready debater, always having high regard for the other man.

He conducted a large free clinic, where many very distressing cases came from neighboring states for treatment. They always received kindly and polite attention at all times.

While he was fond of good, wholesome stories, I never heard him take the name of God in vain or tell vulgar stories. He always remembered that gentlemen were present, even if ladies were absent, and conducted himself accordingly. He was always thinking of others and striving to assist others in climbing up.

When he died, had every medical man or some member of their family who had received treatment at his hands, brought a flower, Convention Hall would not have been half large enough to hold the flowers.

Students were fond of him and his lectures were well attended. Dr. Scott possessed a good mind and he was keenly devoted to and enjoyed his professional work in all its branches. He was constantly called upon to read papers and speak before medical associations. He never failed to place the highest ideals before his students. Dr. Scott's personal character and very high standard of professional honor contributed largely towards the establishment and recognition of X-ray therapy as a special branch of study and practice at a time when for many reasons specialism had a low standing in the medical profession.

He diagnosed his own malady. He went to Europe to consult eminent men in regard to his condition; none of them could give him any hope. Five years ago, owing to his condition, he retired from practice and went to live with his mother at Peabody. He was a great sufferer; no one ever heard a word of complaint escape his lips. He tried to be a man at all times and did his utmost not to cause any trouble or unnecessary work for any of his friends. He discussed his condition many times with the writer and waited the end calmly, hopefully, serenely. He looked with joyful eyes upon the changing face of the world with gladness; there was no trembling. His spirit was never broken, even when the lights burned dimly. He was a Presbyterian in religion. He was a member of the Masonic Fraternity and Shrine. He was a skillful radiographer and member of the National Society of Roentgenologists. He was a member of the American Medical Association, Missouri State and Jackson County Medical Societies and Kansas City Academy of Medicine.

Dr. Scott was the eighth American physician whose death the X-ray has caused, all given on the firnig line of work and early investigation for humanity, upon the altar of sacrifice, martyrs of medical science. For five years Dr. B. T. Prather of Peabody, Kan., attended Dr. Scott tenderly, friendly and administered to his every want. Miss Gertrude Cooper, R.N., was his nurse for more than two years. The

people of Peabody showed Dr. Scott many acts of kindness during his illness and when the last summons came they, with tender and loving hands, laid him away in the cemetery at Peabody.

The writer met Dr. Scott about twenty-five years ago. His name will live in the annals of X-ray, not only as the skillful and successful operator, but as the courteous and accomplished gentleman whose kindness of heart many have experienced and whose personal charm none who have known him will ever forget. He honored the medical profession. His mother and brother are still living. How short was his life, but wonderful things he beheld while he lived. He now rests from pain and labor. May he now have rest, peace and eternal life.

ALBERT H. PETERS, M.D.

Colorado Springs, Colo.

IN the prime of life, Dr. Albert H. Peters, one of the prominent members of the medical profession of Colorado, died in Colorado Springs, August 2, 1922.

Death came four days after an operation for appendicitis.

The doctor was born in Sterling, Ill., in 1873, where he spent his early manhood. He was graduated from Keokuk Medical College in 1900; he also attended post-graduate schools in New Orleans, New York and Chicago and took private instructions under Dr. Murphy in Chicago and Mayo Brothers at Rochester, Minn. He was a member of his county, state and national medical societies and The Western Electrotherapeutic Association. For the ten years just past he was associated with Dr. B. B. Grover at Colorado Springs.

He was prominent not only in medical circles, but in civic affairs,, being a member of the Chamber of Commerce and Rotary Club. He was a thirty-second degree Mason and a member of the Al Kaly shrine, a member of the Knights of Pythias, Benevolent and Protective Order of Elks and many other fraternal societies. He had charge of the Observation and County hospitals and U. S. Government clinic.

His jolly disposition drew to him hundreds of friends and his knowledge of medicine brought to him an extensive practice. No night was ever too dark, no storm too severe, no roads impassable for him to answer to the call of the distressed.

He was admired by all and dearly loved by his patients. In his passing the profession has lost a splendid member and the community a generous friend and foremost citizen. B. B. G.

PERFORATION OF METRAL AND AORTIC VALVES

¶ Dr. John E. Conroy of New York and Dr. Herman L. Kretchmer of Chicago report a case of malignant endocarditis with perforation of both metral and aortic valves, a very unusual condition. An oversea man, reported at U. S. Army Debarkation Hospital, March 3rd, as an average cardiac case. The trouble had started Feb. 1, 1919, from exposure. The case followed an average course until March 12th, when he died. A pure culture of Streptococcus viridans was obtained from the pericardium. The metral and aortic valves were both perforated.

Society Scintillations

CLINIC WEEK IN KANSAS CITY

FOR some time the members of the medical profession of Kansas City who are actively associated with the different hospitals, have considered a bi-annual clinical meeting—to last over a period of one week—this to be a part of the general plan of medical education of Kansas City and the adjacent territory. The facilities furnished by the hospitals of Kansas City make it possible for a demonstration to be given in all lines of work, including laboratory and the specialties.

In order to start this program and perpetuate it, the Kansas City Academy of Medicine is sponsoring the venture. We feel that there is too much good material going to waste which should be made available for study. Our present plan is to devote the entire week to the demonstration of medical subjects and the discussion relative to the different cases and conditions shown.

We believe that the interchange of ideas will be of benefit to all those who attend the different sessions. We hope to make our program as interesting and as instructive as possible, and sincerely trust that all of the profession who are able to take advantage of this meeting will attend.

Week of the Academy of Medicine, October 3rd, 4th, 5th and 6th. October 3rd will be registration day. The mornings of October 4th, 5th and 6th clinics will be held at each of the following hospitals:

Mercy Hospital.
Kansas City General Hospital.
U. S. Public Health Hospital.
Trinity Lutheran Hospital.
Bell Hospital.
St. Margaret's Hospital.
Bethany Hospital.
Christian Church Hospital.
St. Luke's Hospital.
St. Mary's Hospital.
St. Joseph's Hospital.
Research Hospital.

Bulletins will be published at headquarters in Hotel Baltimore, indicating the kind of clinic and the conductor the day preceding same.

The evening of the fifth a banquet will be held and a speaker of national reputation will talk upon some live medical question of the day.

The evening of the sixth the Academy of Medicine will give its program, with the following assayists:

Dr. P. T. Bohan, Medical.
Dr. Jabez Jackson, Surgical.
Dr. Frank Hall, Pathology.

The Kansas City Priest of Pallas holds its carnival on the same dates, but this will not interfere with the medical program, as the Priests of Pallas have nothing scheduled for the morning.

Bring your wives to the city and let them attend the Priest of Pallas Ball with you on Tuesday night and on the other nights you can attend the medical functions and the ladies will be entertained.

We intend to make these yearly clinics permanent.

For further information address Dr. C. C. Dennie, chairman, 810 Rialto building, Kansas City, Mo.

Dr. Luther M. Callaway announces his practice is now limited to diseases of the ear, nose and throat. Office, 803 Waldheim building, Kansas City, Mo.

THE MEDICAL ASSOCIATION OF THE SOUTHWEST

The annual meeting of this association will be held in Hot Springs, Arkansas, under the presidency of Dr. St. Cloud Cooper, of Fort Smith, Arkansas, the dates having been changed to October 16, 17, 18. The Tri-State Medical Society and the Southwestern Branch of the American Urological Association will hold their annual sessions in conjunction with the "Southwest." All meetings will be held in the Eastman Hotel, which will also be headquarters. Dr. William H. Bailey, of Oklahoma City, is the secretary, to whom all communications should be addressed. Dr. W. T. Wootton is chairman of the general arrangement committee. Make your hotel reservations early, and do not forget to include the ladies.

MISSOURI VALLEY NEWS

Again has the lure of California been felt in Omaha, this time affecting Dr. F. E. Coulter, one of the leading psychiatrists of the Missouri Valley. Dr. and Mrs. Coulter will leave this month for Santa Ana, Calif., where they will make their home in the future. Dr. Coulter will have an office in Los Angeles. The doctor has been an active member of the Society of the Missouri Valley for many years, and will be missed at our annual gatherings. Our best wishes go with them.

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The Lutheran General Hospital of Sioux City has been reorganized and a new staff appointed consisting of Drs. Townsend, Nervig and Henkin, in surgery, Dr. Bellaire, radiology, Dr. Brandt and Dr. Franchere, eye, ear, nose and throat, Dr. Vangsness and Dr. Runyon, internal medicine, Dr. Harold Brown, pediatrics, Dr. Latchem, neurology, Dr. Victor Brown, skin and venereal, Dr. O'Donaghue, Orthopedics. The hospital has just completed a new $120,000.00 addition and is being standardized.

✣ ✣ ✣

Dr. F. L. Krampert, late house physician Wise Memorial Hospital, Omaha, and Miss Grace Drinnen, Columbus, were married in Omaha May 30. They will live at Hanna, Wyo.

✣ ✣ ✣

Dr. Donald Macrae, jr., Council Bluffs, Ia., late colonel medical corps. was decorated with the distinguished service medal with full military honors at Fort Crook, June 7, "for exceptionally meritorious and distinguished services, in a position of great responsibility as commanding officer of Mobile Hospital No. 1, at Coulommiers and Chateau Thierry from June to August, 1918."

✣ ✣ ✣

Dr. D. A. Foote, Omaha, and Miss Lulu N. Maxwell, Fremont, were married recently.

✣ ✣ ✣

Dr. Leroy Crummer, distinguished Omaha bachelor, noted internist and medical archaelogist, was married to Mrs. Myrtle Kelley, Omaha, the middle of July, and the couple immediately left for an extended trip to Europe.

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W. A. Rosenthal X-Ray Company has secured the services of H. H. Pratt, Colorado Springs, Colo., an experienced roentgenologist and an expert in the use of all electrotherapeutic modalities. He is an associate member of The Western Electrotherapeutic Association. Mr. Pratt will have charge of the company's office at Oklahoma City.

✣ ✣ ✣

Dr. E. A. Wood of Sedalia has retired from practice and moved to Hemet, Calif., where his principal occupation will be the cultivation of oranges and olives on a ranch that he has acquired. Dr. Wood has practiced in Sedalia for the past twenty-seven years. He founded and organized the Maywood Hospital which was in successful operation for a number of years and was sold to the Sisters of Charity in 1915 when the name was changed to St. Mary's Hospital. The Pettis County Medical Society tendered a farewell dinner in honor of Dr. Wood on July 6. Dr. Wood's office equipment and records have been acquired by Dr. A. L. Walther, his associate during the past few years.

✣ ✣ ✣

Dr. Walter Bierring has left for a six weeks trip abroad. Dr. Bierring will spend the greater part of his time in Scotland. While at Edinburgh he will have a high degree conferred upon him by Edinburgh University in recognition for medical services of unusual character during the World War.

✣ ✣ ✣

Dr. Arthur Steindler, professor of orthopedic surgery at Iowa University, and head surgeon at the Children's Hospital across the river has left for the East. He will sail for Europe and pass the coming three months at his old home in Vienna, Austria.

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IOWA FELLOWS OF THE AMERICAN COLLEGE OF PHYSICIANS

The following physicians of Iowa are fellows of the college:

Granville N. Ryan, Des Moines.
Jeannette F. Throckmorton, Des Moines.
Tom B. Throckmorton, Des Moines.
Stewart Gaumer, Fairfield.
Frank M. Fuller, Keokuk.
Ed. Wm. Meis, Sioux City.
John W. Shuman, Sioux City.
Edward M. Williams, Sioux City.
Joseph W. Rowntree, Waterloo.

MIXED OR STRAIGHT

Another argument in favor of the treatment by giving a mixed gland product in endocrine disturbance is the statement that "Children bear thyroid preparation much better than adults and rarely acquire Graves' disease. The reason may be that their active thymus is able to neutralize the excessive or morbid activities of the thyroid gland."

Also in the May Paris Medical, P. Lereboullet states that in treating obesity in children "pituitary or suprarenal extract seemed to increase the efficiency of thyroid treatment."

SLANTS ON BIRTH CONTROL

Do you believe that the rich should have the knowledge at their command to prevent the birth of their children and the poor be denied?

Do you think Japan or any country would be justified in going to war (if any war is justifiable) because their population is too dense?

Do you think the law or any human power should say how many children a mother may have?

Do you think that the age limit when men and women may marry should be curtailed in order to prevent more children?

Do you think **the fit** should be indicated by law—for procreation and the unfit be denied?

"Within the past year I have asked three prominent laryngologists of my home city as to who was the better judge of the need of a tonsillectomy, the laryngologist or the good family physician, and all three unhesitatingly said the latter."—Gordon Wolson, Baltimore.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald

and Electro-Therapist

Incorporating the

Kansas City Medical Index-Lancet

EDITORIAL STAFF:

Managing Editor: Charles Wood Fassett, 115 E. 31st St., Kansas City, Mo.

G.-U. and Syphilology: Thos. A. Hopkins, St. Louis.
Internal Medicine: Harry Nelson Jennett, Kansas City
Gastro-Enterology: J. M. Bell, St. Joseph.
Electro-Therapy: Burton B. Grover, Colorado Springs.
Surgery: Jno. E. Summers, Omaha.

All communications should be addressed to the Managing Editor.

Vol. LXI SEPTEMBER 15, 1922 No. 9

The Editors' Forum

"Endorsed by the Medical Profession"

THE crusade for truth in advertising mildly waged among retail merchants needs to be prosecuted vigorously in the realm of Medicine. Any remedy, however impotent or far-fetched in application or absurd on its face, may be advertised to the world with the declaration of medical endorsement. It places medical practice upon a low basis, it makes a cat's paw of the medical man, it degrades the dignity of the doctor, it creates false value to worthless compounds and the most deplorable feature of all to the public is the fact that the profession of medicine is giving its sanction to fraudulent remedies, if not, why do doctors permit it? There is never a word in public print to deny the allegation, nor to prevent the prostitution of the profession's name. Any one with any remedy feels perfectly safe in declaring that doctors endorse it. And the pity is, there are always weak brothers, who, for a consideration, will commend any preparation, sell the good name of the profession and render impotent any defense against any advertising charlatan. As the matter stands at present, with endorsements foolishly, unwisely given by doctors, it would involve expensive litigation to convince the public that a few unwise doctors do not represent the entire medical fraternity. It would be next to impossible to convict any firm using the expression in their printed matter. The only hope of reform or defense is publicity, as suggested by the A. M. A. recently. There has been some talk of the A. M. A. getting out a journal for the public, to place our stand in its true light, regarding cults, as well as to correct many other false ideas, and we hope this matter will not be neglected.

J. M. B.

Barnum Said

THE other day I got a letter from a fellow that I had never seen "before," nor heard of before—nor since. He said he had invested $500 of his hard-earned money and needed some more, and if I would send him ten dollars or multiple thereof, he would invest it for me and it would, no doubt, prove a good investment on his honor as a gentleman, and may be I would make big money.

Now let's see—

If a man were to approach you on the street and ask you for $10.00, you would wish to have him arrested, but by mail he may ask you on his honor as a gentleman and get away with it—the ten dollars.

So reading his letter and meditating on its classic passage, it came to me that some one said "a sucker is born every minute," and being a doctor, he wrote to me, and so on the bottom of his letter I wrote: "I was born on the half minute—please send me $10 as an investment on my honor as a gentleman. I will add $25 of my hard-earned money and buy a suit of clothes, which ought to be a good investment."

Medicine Needs to Be Understood by Legislation 'N'ev'rything

THE problems confronting the medical profession today as outlined by the committee of publicity of the Minnesota Medical Association are three: First, lowering the standards of medical treatment by admitting osteopaths and others to full practice of medicine and surgery. Second, state medicine, a substitute for universal Health Insurance. Third, question of insuring support and fealty to doctors from the laity.

To have these matters understood and appreciated, it will be necessary to legislate the idea into the public mind, 'n'everything. The place to begin is in the county medical society with a legislative-publicity-propaganda committee, educating the public and setting our house in order. "Why boys leave the farm" becomes a problem requiring study to correct the conditions and make the farm more attractive.

When medical conditions become intolerable we have much to attend.

Standard medical education has run ahead of medical discernment on the part of the

ublic—and, one might add, the average legis-ature or -or.

The public a few years ago did not read the abel on its food stuffs, neither did the label tate what was nominated in the bond; and he contents of the package was made to ckle the public fancy. Propaganda and legis-ation then became imperative and effective—rotecting the public. And so now with our

ledical Package.

The time is ripe. Legislation must pro-ct the public whom medicine lives to serve, nd in return medical life and medical ad-ancement must be made tolerable.

Recently (in the April Cosmopolitan) there ppeared a rather scurrilous article purport-g to be a criticism of medicine. If you have ot seen the article it may be procured at the hristian Science reading rooms!

Selah!

You notice today that when a criticism of hristian Science is published immediately ere appears a reply, a refutation and a lm, sent out from their publicity headquar-rs, which is alive and on the job.

What does organized medicine do in refu-tion and reaction for such articles as men-oned above? Nothing, absolutely nothing! he sits supinely by with hands folded and iers the other cheek.

Our gluteus maximus is also ecchymosed om over treatment by enthusiastic osteo-ths, chiros and others.

If you know what I mean.

Moral: if any. This case has progressed far that some X-ray treatment is now ne-ssary and a **lawful** operation is imperative fore a cure can be expected. H. N. J.

THE PREVENTION OF INSANITY

Insanity is increasing alarmingly.

The care of the insane has resolved itself to a definite science. The prevention is al-ys better than the cure. The prevention of sanity is little emphasized. Of the simple, actical preventive measures, the following hibit may suffice:

By curtailing the progeny of the "once in-ne," of the neuropathics, and of the hys-ricals and of the mental and nervous weak-gs.

By a return to the more primitive methods of ising children.

By rigid discipline—military training.

By requiring tasks of children and enforcing e "thou shalt not's."

By curtailing the use of too much spend-g money and motor cars and the too liberal d uncensored movies.

By steering the boy and girl through a re healthy pubescent stage.

By a transfer of residence for three months every year from Sillyville to the country.—C. B. Burr, Prac. Psych. & Psych.

By requiring the adolescent child to face the real situations of life.—L. F. Barker, Jr. Ment. Hyg., Apr., 1919.

By promoting sex education and the chance for a normal sexual development and not an "errant emotionality" and late marriage.

By "housekeeping and homemaking and childbearing." Too many nowadays do not become crazy to get married!

By education, and by living lives of normal function for normal organs.

By educating the physician, the health visitor, the school teacher, the social worker, in the essentials of beginning mental deficiency.

By preventing environmental conditions promoting alcoholic and narcotic habits, epilepsy, hysteria, "mental peculiarities and acquired neuroses."

By teaching birth control to the unfit; by preventing the marriage of the unfit, the alcoholics, epileptics, syphilitics, neurotics, mental defectives, and of mothers near the menopause.

By catching the first symptom of nervous breakdown (introspection) and preventing the breakdown. (Watch the health crank, the health faddist, reading and studying mental things, adding fuel to the flame. With him a little knowledge is a dangerous thing).

By guarding against overwork, overstudy, overtraining. It frequently has been stated that a nervous breakdown unbalances the mind.

"By preventing or stopping masturbation," probably has nothing to do with insanity, but that masturbation results from the insanity (dementia parecox).

By removing certain nervous cases from their dissatisfied surroundings to a hospital or rest cure. (The stigma of insanity must be avoided.)

By a more active "segregation of the special cases of mental defects."

By mental hygiene.

By a more careful handling and better understanding of the "different child."

By sterilization of the insane? (None of the states are enforcing the law for the sterilization of the insane).

By child welfare work.

By requiring compulsory notification of cases of mental deficiency. (Not failing to supply the physician with stamped, addressed, envelope for this and all compulsory case reporting.—Selah!)

By establishing psychiatric clinics.

H. N. J.

—o—

¶ Plato defined man as a biped without feathers. Now we have chickens with feathers n'ev'rything.

Are You a Member?

"Come with us and we will do thee good"

ORGANIZED at Council Bluffs, Iowa, September 27, 1888. Objects: "The objects of this society shall be to foster, advance and disseminate medical knowledge; to uphold and maintain the dignity of the profession; and to encourage social and harmonious relations within its ranks."—Constitution.

THE MEDICAL SOCIETY OF THE MISSOURI VALLEY

Thirty-fifth Annual Meeting at St. Joseph, Mo., September 21-22, 1922
Clinics Will Be Held on September 19 and 20

OFFICERS

President
Paul E. Gardner
New Hampton, Iowa

First Vice-President
J. H. Lehnhoff
Lincoln

Second Vice-President
Austin McMichael
Rockport

Treasurer
O. C. Gebhart
St. Joseph

Secretary
Charles Wood Fassett
Kansas City

Chairman Arrangement Committee
Floyd H. Spencer
St. Joseph

ST. JOSEPH BIDS YOU WELCOME
"THE CITY WORTH WHILE"

MEDICAL SOCIETY OF THE MISSOURI VALLEY, MEETING TO BE HELD IN ST. JOSEPH, SEPTEMBER 21-22

Committees

Floyd H. Spencer, chairman of General Arrangement Committee.

Meeting Place—H. W. Carle, E. S. Ballard, H. K. Wallace.

Finance—J. I. Byrne, Caryl Potter, W. J. McGill.

Hotels—F. X. Hartigan, G. A. Lau, J. M. Allaman.

Entertainment—H. S. Conrad, J. J. Bansbach, W. L. Kenney.

Clinic—J. I. Byrne, H. W. Carle, W. L. Kenney.

O. C. Gebhart—Secretary.

F. H. Ladd—President.

Ladies' Committee—Mrs. A. L. Gray.

Exhibits—Mrs. Blanche Gibson.

Clinics

To be held September 19th and 20th, at the following hospitals:

Noyes Hospital—

Eye, Ear, Nose and Throat: L. R. Forgrave.
Diseases of Children: E. S. Ballard.
Medicine: J. F. Owens, E. M. Shores.
Surgery: E. A. Gummig, H. S. Conrad, L. P. Forgrave, H. S. Forgrave, W. T. Elam.
Obstetrics: H. D. Kearby.
Urology: J. J. Bansbach.
X-Ray: H. J. Ravold.

Ensworth Hospital—

Eye, Ear, Nose and Throat: W. L. Kenney.
Diseases of Children: W. Roger Moore.
Medicine: H. W. Carle.
Urology: Chas Greenberg.
Surgery. J. Geiger, C. G. Geiger, W. J. McGill, Floyd H. Spencer.

St. Joseph's Hospital—

Eye, Ear, Nose and Throat: E. A. Miller, W. H. Minton, W. C. Proud.
Medicine: J. M. Bell, L. H. Fuson.
Surgery: J. I. Byrne, E. F. Cook, G. A. Lau, F. H. Ladd, C. A. Potter, H. K. Wallace, C. H. Wallace.
Urology: T. M. Paul.

Upon arrival, visitors will register at Hotel Robidoux, where bulletins of the clinics will be posted. The profession cordially invited.

THE thirty-fifth annual meeting of this asso tion will be held in St. Joseph, under the p idency of Dr. Paul E. Gardner, on Septem 21-22. The Buchanan County Medical Society is paring for a series of clinics to be held at the vari hospitals of St. Joseph on Tuesday and Wednes preceding the meeting, September 19-20. St. Jos has a proverbial reputation for warm-hearted ho tality, and the arrangement committee, under the le ership of Dr. Floyd H. Spencer, announces that "tang" of his city for entertainment and good fell ship will be fully sustained upon this occasion. famous hotel Robidoux will be headquarters, and sessions will be held in the beautiful Crystal Ro The exhibits will be on the same floor.

One of the features of the second day will be a s posium on the "Early Recognition of Cancer" pa cipated in by a number of men who have won nati distinction in research work and clinical investiga On Thursday evening at 7:30 o'clock, Dr. C. W. H kins, chief surgeon of the C. & N. W. railway, give an illustrated lecture on "Injuries and Surg of the Spine," and Dr. N. M. Keith, of the M Clinic, will present a paper on "Hypertension in dio-Vascular Disease," illustrated by lantern sli Following the evening session will be a smoker other entertainments. Members are urged to b their ladies who will be entertained while the fell are attending the sessions.

Reservations of rooms at the Robidoux shoul made early to avoid disappointment. The me profession of adjoining states cordially invite attend the clinics whether or not they are mem of the society.

The preliminary program follows:

"The Modern Meaning of Biliousness; Its Sy tomatology and Treatment," Dr. Frank Smit Chicago, Ill.

"The Treatment of Recurrent Inguinal Herni (Illustrated.) Dr. Leigh F. Watson, Chicago.

"Epithelioma," Dr. Lynne B. Greene, Kansas

"Goiter Operation" (illustrated), Dr. E. P. S president Illinois State Medical Society, Bloomin Ill.

OUR PRESIDING OFFICER



DR. PAUL E. GARDNER
New Hampton, Iowa

"Toxic Factors in Intestinal Obstructions," Dr. T. G. Orr, Kansas City.

"Convulsions in Children," Dr. J. Grover Burnett, Kansas City.

"The Phosphatic Index," Dr. Henry Dowd, Buffalo, N. Y.

"Some Phases of the Relation of Dental Focal Infection and Systematic Diseases," Dr. Russell L. Haden, Kansas City.

"Renal Function in Prostatic Hypertrophy," Dr. Raymond L. Latchem, Sioux City.

"Myoclonic Type of Epidemic Encephalitis," Dr. Lloyd Jamee Thompson, St. Joseph.

"The Nature and Treatment of Bronchial Asthma," Dr. Logan Clendening, Kansas City, Mo.

"Some Observations On the Treatment of Neuro-Syphilis" (with case report), Dr. G. Wilse Robinson, Kansas City, Mo.

"The Importance of Lesions of the Ureter Is Diseases of the Upper Urinary Tract," Dr. Clinton K. Smith, Kansas City, Mo.

"Importance of Breast Feeding," Dr. J. R. Martin, Sioux City, Iowa.

"Diagnosis of Functional Heart Diseases," Dr. C. Corbin Yancey, Sioux City, Iowa.

"The Management of Traumatisms to the Cornea," Dr. S. R. Gifford, Omaha, Neb.

"Diabetis Mellitus," Dr. L. H. Fuson, St. Joseph, Mo.

"How Many Hemorrhoids?" Dr. Daniel Morton, St. Joseph, Mo.

"Diagnostic Methods in Kidney and Urethral Disease," Dr. John Mills Mayhew and Dr. Arthur L. Smith, Lincoln, Neb.

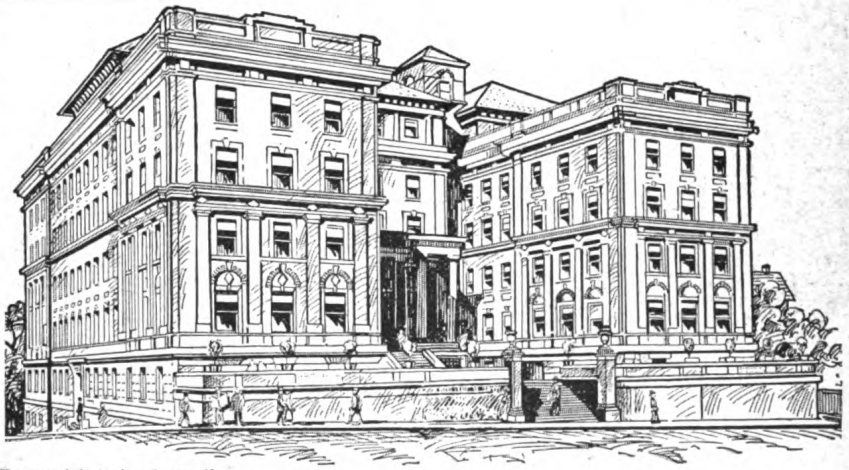
Dr. Lynne B. Greene, Kansas City, subject to be announced.

"Cancer: Its Early Recognition," a symposium.
(a) Address, Dr. Fred J. Taussig, St. Louis, Mo., "How far Can the Cancer Death Rate Be Decreased by Educating the Profession and the Laity."
(b) "Superficial Cancers," Dr. E. H. Skinner, Kansas City, Mo.
(c) "Gastro-Intestinal Cancers," Dr. John M. Bell, St. Joseph, Mo.
(d) "Cancer of the Breast," Dr. Donald Macrea, Council Bluffs, Iowa.
(e) "Cancer of the Uterus," Dr. Palmer Findley, Omaha, Neb.

Complete program will be issued September 1; if you do not receive a copy notify the secretary. Dr. Charles Wood Fassett, Kansas City, Mo.

THE HOSPITALS OF ST. JOSEPH

The New Missouri Methodist Hospital.—Twenty-five years ago this fall the Ensworth Hospital opened its doors, and the first day registered in less than a dozen patients. Its work was done in the building known as the Ensworth Medical College, a part of which had been fitted up for hospital purposes. Its business grew as the years passed until a larger building was necessary, and about twelve years ago a wing was built with rooms for about forty beds, thus increasing the total capacity of the



institution to approximately eighty beds. Notwithstanding that the building has grown old, and is lacking in many modern conveniences, the Ensworth Hospital has continued to be popular with the sick and suffering public up to the present time. This is evi-

dence of the fact that during its career approximately 34,000 patients have entered it for treatment, at least 70 per cent of which have been surgical cases. Perhaps one reason for the popularity of this institution is due to the sympathetic as well as careful professional care that its inmates receive.

A modern and up to date building, with a larger capacity, has been a great need for several years. In fact, a movement was begun several years ago to provide such a building, but the war came on and activities were suspended. They have been resumed, however, and at this time a modern hosptial building, of a 225 bed capacity, is in process of construction. When completed, it will be equipped with all modern conveniences. The new hospital site is two blocks removed from the present building, and is located at the corner of Eighth and Faraon Streets, considered to be one of the most attractive sites for such a building to be found in this city. The new hospital will be known as the Missouri Methodist Hospital, and will be conducted under the auspices of the Missouri Conference of the Methodist Episcopal Church. A few years ago a new charter was secured, and the corporation was known as the Missouri Methodist Hospital Association.

Noyes Hospital.—This institution is located on Twenty-fourth Street and Fredecick Avenue, on one of the highest points in the city, convenient to the street car lines. It is a fire-proof building, equipped along the most modern lines for the proper care of patients. The hospital will accommodate 100, having a number of small ward rooms as well as rooms for individual patients. The patients from the Social Welfare Bureau are cared for in this hospital. This institution is not limited to a staff of physicians; it is open to all reputable practitioners who conform to the rules of the hospital.

St. Joseph's Hospital.—This institution is conducted by the Sisters of Charity, and is located on high grounds in a quiet, residential section. Accommodations are provided for 200 patients, a large annex having been added to the hospital last year.

There are seven operating rooms: four for general surgery, one for bone surgery, two for eye, ear nose and throat work. The X-Ray and pathological laboratories are thoroughly equipped and are in charge of specialists of well-known ability.

Hotel Rates

Rates at the various St. Joseph hotels will be a follows:

Robidoux Hotel

Room without bath—single	$2.0
Room without bath—double	3.0
Room with bath—single	$3.00 & 3.5
Room with bath—double	5.00 & 5.5

St. Francis Hotel

Room without bath—single	$1.75 & $2.0
Room without bath—double	2.50 & 3.5
Room with bath—single	2.50 & 3.0
Room with bath—double	3.50 & 4.0

St. Charles Hotel

Room without bath—single	$1.5
Room without bath—double	3.0
Room with bath—single	2.0
Room with bath—double	3.5

Hotel Otten

Room without bath—single	$1.5
Room without bath—double	2.5
Room with bath—singe	2.5
Room with bath—double	4.0

THE EXHIBITS

At St. Joseph will occupy the "Red room," o ground floor, as well as the mezzanine floor. Th following firms will be represented:

Campbell Boot Shop, St. Joseph; Mountain Va ley Water Co., Kansas City; Erschell Davis Co Kansas City; Horlick's Malted Milk Co., Racin Wis.; Hettinger Bros. Co., Kansas City; Goetz-Ni mer Co., St. Joseph; Charles F. Mills, X-Ray, Kansa City; Physicians' Supply Co., Kansas City; Victo X-Ray Co., Chicago-Kansas City; Iodum Miller Co Kansas City; W. A. Rosenthal Co., Kansas City.

TODAY

Live life today as though today were all,
As though this very morning you were born.
Your yesterdays' are days beyond recall;
Tomorrow does not come until the morn.

Rest not upon the victories you have won;
Because you lost, surrender not to fear.
Your yesterday was ended with the sun,
Tomorrow has not come. Today is here!

—Douglas Malloch.

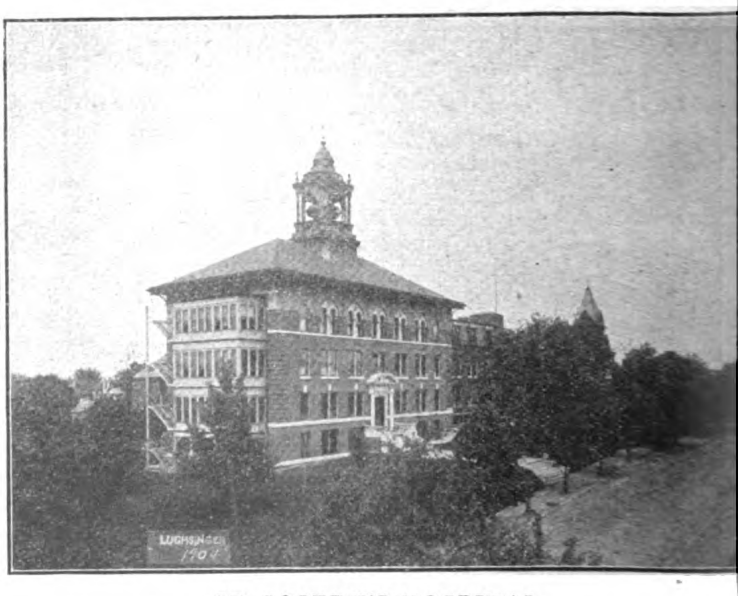


NOYES HOSPITAL

POME

The shades of night were falling fast.
Joy riders in their car rushed past.
Their drink would melt both snow and ice
'Twas made of fresh though strange device

—Excelsior.



ST. JOSEPH'S HOSPITAL

MEDICAL SOCIETY OF THE MISSOURI VALLEY

MEETING OF THE SOCIETY AND OFFICERS IN CHARGE FROM ORGANIZATION TO THE THIRTY-FIFTH ANNUAL MEETING

PLACE OF MEETING.	DATE OF MEETING	PRESIDENT.	SECRETARY.	TREASURER.
*Council Bluffs, Ia.	Sept. 27, 1888	†Dr. Donald Macrae, Council Bluffs, Ia.	Dr. A. S. Von Mansfelde	†Dr. T. B. Lacey
" "	Dec. 20, 1888	" " "	†Dr. James Carter	" " "
" "	Mar. 21, 1889	" " "	" " "	" " "
Omaha, Nebraska	Sept. 19-20, 1889	†Dr. J. M. Emmert, Atlantic, Iowa	" " "	" " "
Sioux City, Iowa	Dec. 19-20, 1889	" " "	" " "	" " "
St. Joseph, Mo.	Mar. 20, 1890	" " "	" " "	" " "
Council Bluffs, Ia.	Sept. 17, 1890	" " "	" " "	" " "
Kansas City, Mo.	Dec. 18, 1890	†Dr. J. M. Richmond, St. Joseph, Mo.	†Dr. F. S. Thomas	" " "
Omaha, Nebraska	Mar. 19, 1891	" " "	" " "	" " "
Council Bluffs, Ia.	Sept. 17, 1891	" " "	" " "	" " "
Lincoln, Nebraska	Dec. 17, 1891	Dr. A. S. Von Mansfelde, Ashland, Neb.	" " "	" " "
Leavenworth, Kan.	Mar. 17-18, 1892	" " "	" " "	" " "
Council Bluffs, Ia.	Sept. 15, 1892	" " "	" " "	" " "
St. Joseph, Mo.	Mar. 16, 1893	†Dr. J. M. Knott, Sioux City, Iowa	" " "	" " "
Council Bluffs, Ia.	Sept. 21, 1893	" " "	" " "	" " "
Omaha, Nebraska	Mar. 15, 1894	Dr. A. F. Jonas, Omaha, Neb.	" " "	" " "
Council Bluffs, Ia.	Sept. 20, 1894	" " "	" " "	" " "
Sioux City, Iowa	Mar. 21, 1895	†Dr. A. L. Wright, Carroll, Iowa	" " "	" " "
Council Bluffs, Ia.	Sept. 19, 1895	" " "	" " "	" " "
Atlantic, Iowa	Mar. 19, 1896	†Dr. F. S. Thomas, Council Bluffs, Ia.	†Dr. Donald Macrae	" " "
Council Bluffs, Ia.	Sept. 19, 1896	" " "	" " "	" " "
Lincoln, Nebraska	Mar. 18, 1897	Dr. H. B. Lowry, Lincoln, Neb.	" " "	" " "
Council Bluffs, Ia.	Sept. 16, 1897	Dr. F. W. Porterfield, Atlantic, Iowa.	" " "	" " "
Red Oak, Iowa	Mar 17, 1898	" " "	" " "	" " "
Council Bluffs, Ia.	Sept. 14-15, 1898	" " "	" " "	" " "
St. Joseph, Mo.	Mar. 16, 1899	†Dr. B. F. Crummer, Omaha, Neb.	Dr. V. L. Treynor	" " "
Council Bluffs, Ia.	Sept. 21, 1899	" " "	" " "	" " "
Hamburg, Iowa	Mar. 16, 1900	Dr. Jacob Geiger, St. Joseph, Mo.	" " "	" " "
Council Bluffs, Ia.	Sept. 20, 1900	" " "	" " "	" " "
Omaha, Nebraska	Mar. 21, 1901	Dr. V. L. Treynor, Council Bluffs, Ia.	Dr. Chas. Wood Fassett	†Dr. Donald Macrae
St. Joseph, Mo.	Sept. 19, 1901	" " "	" " "	" " "
Lincoln, Nebraska	Mar. 20, 1902	†Dr. R. C. Moore, Omaha, Nebraska	" " "	" " "
Sioux City, Iowa	Sept. 18, 1902	" " "	" " "	" " "
Council Bluffs, Ia.	Mar. 19-20, 1903	†Dr. J. M. Barstow, Council Bluffs, Ia.	" " "	" " "
Omaha, Nebraska	Sept. 14, 1903	" " "	" " "	" " "
Lincoln, Nebraska	Mar. 24, 1904	†Dr. A. D. Wilkinson, Lincoln, Neb.	" " "	" " "
Council Bluffs, Ia.	Aug. 25-26, 1904	" " "	" " "	" " "
Kansas City, Mo.	Mar. 23-24, 1905	Dr. S. Grover Burnett, Kansas City, Mo.	" " "	" " "
Council Bluffs, Ia.	Aug. 24-25, 1905	" " "	" " "	" " "
St. Joseph, Mo.	Mar. 22-23, 1906	Dr. Jno. E. Summers, Omaha, Neb.	" " "	" " "
Council Bluffs, Ia.	Sept. 6-7, 1906	" " "	" " "	Dr. Donald Macrae, Jr.
Omaha, Nebraska	Mar. 21-22, 1907	†Dr. O. B. Campbell, St. Joseph, Mo.	" " "	Dr. H. B. Jennings
Council Bluffs, Ia.	Sept. 5-6, 1907	" " "	" " "	" " "
Lincoln, Nebraska	Mar. 19-20, 1908	Dr. W. F. Milroy, Omaha, Neb.	" " "	Dr. T. B. Lacey, Jr.
Council Bluffs, Ia.	Sept. 3-4, 1908	" " "	" " "	" " "
St. Joseph, Mo.	Mar. 19-20, 1909	†Dr. C. B. Hardin, Kansas City, Mo.	" " "	" " "
Council Bluffs, Ia.	Sept. 9-10, 1909	" " "	" " "	" " "
Omaha, Nebraska	Mar. 17-18, 1910	Dr. A. B. Somers, Omaha, Neb.	" " "	Dr. O. C. Gebhart
Council Bluffs, Ia.	Sept. 1-2, 1910	" " "	" " "	" " "
St. Joseph, Mo.	Mar. 16-17, 1911	Dr. Donald Macrae, Jr., Council Bluffs, Ia.	" " "	" " "
Omaha, Nebraska	Sept. 7-8, 1911	" " "	" " "	" " "
Colfax, Iowa	Mar. 21-22, 1912	Dr. J. M. Bell, St. Joseph, Mo.	" " "	" " "
Council Bluffs, Ia. "Silver Jubilee"	Sept. 5-6, 1912	" " "	" " "	" " "
Kansas City, Mo.	Mar. 20-21, 1913	Dr. H. B. Jennings, Council Bluffs, Ia.	" " "	" " "
Omaha, Nebraska	Sept. 18-19, 1913	" " "	" " "	" " "
Lincoln, Nebraska	Mar. 26-27, 1914	†Dr. F. B. Tiffany, Kansas City, Mo.	" " "	" " "
Colfax, Ia.	Sept. 17-18, 1914	" " "	" " "	" " "
Omaha, Nebraska	Mar. 25-26, 1915	Dr. Granville N. Ryan, Des Moines, Ia.	" " "	" " "
Des Moines, Ia.	Sept. 23-24, 1915	" " "	" " "	" " "
St. Joseph, Mo.	Mar. 23-24, 1916	Dr. John P. Lord, Omaha, Neb.	" " "	" " "
Omaha, Nebraska	Sept. 21-22, 1916	" " "	" " "	" " "
Keokuk, Ia.	Mar. 22-23, 1917	Dr. C. R. Woodson, St. Joseph, Mo.	" " "	" " "
Lincoln, Neb.	Sept. 20-21, 1917	" " "	" " "	" " "
Omaha, Nebraska	Sept. 19-20, 1918	Dr. A. I. McKinnon, Lincoln, Neb.	" " "	" " "
Des Moines, Ia.	Sept. 18-19, 1919	Dr. Chas. Wood Fassett, Kansas City.	Dr. S. Grover Burnett	" " "
Omaha, Neb.	Sept. 6-7, 1920	Dr. Chas. Ryan, Des Moines, Ia.	Dr. Chas. Wood Fassett	" " "
Kansas City, Mo.	Oct. 24-28, 1921	Dr. W. O. Bridges, Omaha, Neb.	" " "	" " "
(Joint meeting with Southwest) St. Joseph, Mo.	Sept. 21-22, 1922	Dr. Paul E. Gardner, N. Hampton, Ia.	" " "	" " "

†Deceased.

For the first four years meetings were held three times a year, in March, September and December. Two meetings a year were held until 1918, when the spring meeting was discontinued; total of sixty-eight meetings since organization.

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

Ringworm and Its Treatment. By John P. Turner, M.D., Medical Inspector Public Schools, Philadelphia. Illustrated. 62 pages. Price, $1.00 net. 1921. F. A. Davis Company, publishers.

This little volume is the outcome of an epidemic of ringworm of the scalp in one of the ward schools of Philadelphia. Dr. Turner worked out an elaborate and successful treatment of this sometimes seeming incurable disease.

Manual of Physio-Therapeutics. By Thomas Davey Luke, M.D., F. R. C. S., author of "Spas and British Health Resorts." Cloth. Price, $6.00 net. Pages, 480, with over 200 illustrations. New York: William Wood & Co. 1922.

The contents of the book are divided into six sections. The first section is devoted to bath apparatus, effects of the various forms of heat and the therapeutic indications for its employment in moist, luminous, radiant and dry forms. Under the heading Phototherapy, the effects and therapeutic indications of sunlight, the leucodescent lamp, the electric light bath are briefly considered. The modern uses of actinic rays are not touched upon.

Section two contains upwards of 100 pages devoted to Hydrotherapy. The technic of compresses, packs, poultices, douches, the whirlpool, nauheim and medicated baths is explained in the text accompanied with many illustrations.

Section three is devoted to massage, Zander exercises and medical gymnastics.

Section four is devoted to the rest cure, sea voyages, open-air sanitoria and climato-therapy.

Section five is devoted to electrotherapeutics. A few pages are given up to the history of electricity and a consideration of galvano-faradism; a quite extensive write-up of the dynamo and an elementary consideration of roentgen rays. Less than three pages being devoted to the therapeutical uses of the high-frequency current.

Section six is devoted to general principles and composition of food, alcoholic beverages and diet in health and disease.

The value of the book lies in the pages devoted to hydrotherapy, massotherapy and dietotherapy.

Applied Chemistry.—By Fredus N. Peters, Ph. D., instructor in Chemistry in Central High School, Kansas City Mo., for twenty-three years. Illustrated. St. Louis, C. V. Mosby Company, 1922. Price, $3.50.

The writer has admirably succeeded in making a very dry subject fascinating. The outlines of chemistry, usually a vast cloud to the student, has been by the author so adorned by facts of every-day life, and explanations of homely value that one proceeds from chapter to chapter, seeking another revelation, and as a pleasant, unconscious noncomitant there is acquired a real, working knowledge of the subject. One who can so carry the student is a true teacher. The science is most skillfully and charmingly presented. As a text book it is commended to classes everywhere, but more particularly to individual students who may have been sentenced to accomplish chemistry as a necessary unit, and who are met, face to face, with a dull, uninteresting volume from which to study. To all such we heartily recommend Peter's Applied Chemistry. J. M. B.

FIRST OF ALL—RELIABILITY

WELCOME

PHYSICIANS AND THEIR FAMILIES

We hope to see you often during the meeting of the "Medical Society of the Missouri Valley" in our city.

Come in and make yourselves at home. Our rest room, free telephones and other store comforts are at your service. Let this store be your headquarters.

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Medical Melange

THE SYMPTOMATIC RELIEF OF INDIGESTION

Combinations of digestive agents, to meet the indications whether the cause of the patient's condition be defective amylolysis or defective proteolysis, are carried on the shelves of every drug store. But there is this difference in the etiology of the two forms of indigestion mentioned: First, the bulk of ordinary food is starchy. Second, the peptic glands have plenty of time to furnish the quantity of gastric juice required, whereas the salivary glands act only while the food is in the mouth. Moreover, starch digestion being the first step in the disintegration of the food, the digestion of proteins waits upon it; defective amylosis invites defective preteclysis. By reinforcing amylolysis, therefore, in appropriate cases, we favor the perfect digestion of proteins without the use of any outside aid—pepsin or any other. The vast majority of dyspeptics are simply unable to take care of the starchy foods they eat, and this disability involves, in time, the digestion of proteins also. A powerful yet harmless starch-digestant is what is needed. Such a preparation, much more powerful than malt extract and more closely allied to ptyalin than to amylopsin, is the diastase marketed by Parke, Davis & Co. under the name of Taka-Diastase. It is very reasonably claimed by the manufacturers that a fair-sized does of Taka-Diastase, taken with or immediately after the meal, enables the patient to dispose of the starchy elements of the meal so promptly that the proteins, exposed to the action of the gastric juice, are readily digested in their turn, and in many instances it is unnecessary to prescribe pepsin or any other digestive agent than Taka-Diastase alone. Taka-Diastase is supplied, we understand, in capsules and tablets of 2½ grains each, and also in powder and liquid form. The usual dose is 2½ to 5 grains, or one or two fluid drachms of the liquid, although much larger doses may safely be given. Taka-Diastase seems to be harmless in any quantity.

THE EPIDEMIC PERIOD

Preventive medicine in the concrete, in the full flowering of its usefulness, is dependent upon the general practitioner. His is the force which will make for progress, for it is he who stands in the close relationship of respected counsellor and friend to the great mass of people. If he is, as Sir Napier Burnett has said, "the keystone of preventive medicine," he has a moral obligation. The methods which he advocates for use should always support and add strength to the contentions of medical science. The products employed should uniformly give results which will uphold his professional honor, his personal integrity and good judgment. This is especially true of the specific products prepared for the prevention and relief of infectious diseases.,Of immediate interest are smallpox vaccine virus, diphtheria antitoxin and the newer diphtheria preventive measures, the Schick Test and Toxin-Antitoxin Mixture. With the opening of schools, the diphtheria problem always assumes new proportions. Epidemics are usu ally initiated among the susceptible school children, to take, however, their greatest toll of life among the susceptibles remaining in the home. The tendency to

The Management of an Infant's Diet

A Rational Procedure in Summer Diarrhea

For Infants of any age

Mellin's Food
4 level tablespoonfuls

Water (boiled, then cooled)
16 fluidounces

Give one to three ounces every hour or two, according to the age of the baby, continuing until stools lessen in number and improve in character.

Milk, preferably skimmed, may then be substituted for water—one ounce each day—until regular proportions of milk and water, adapted to the age of the baby, are reached.

Mellin's Food Company, Boston, Mass.

postpone vaccination against smallpox until school age and the consequent rules and regulations of school authorities in many places regarding vaccination for school eligibility put emphasis at this time upon the procedure. Smallpox vaccine virus and diphtheria anti-toxin need no brief. The use of the Schick Test and Toxin-Antitoxin Mixture has passed all stages of experiment. There remains only the education of the parents to their value and great need, the turning of wilful as well as helpless ignorance into knowledge and the fruits thereof—their universal application. Products which are said to fulfill the requirements of the most exacting physician as regards their quality and dependableness and the convenience of the package and administration are those manufactured by Eli Lilly & Company. Schick Test and Diphtheria Toxin-Antitoxin Mixture, Lilly, uphold and sustain admirably the reputation of this house for unexcelled biologics. Another advantage, especially in epidemic conditions, is their method of distribution which provides ready service through the druggist. Address Eli Lilly & Company, Indianapolis, Ind., for booklet on Schick Test and Diphtheria Antitoxin Mixture.

THE ANTISEPTIC OF TODAY

Chlorazene is gradually taking the place of phenol, bichloride and other antiseptics used since the tallow candle days. Those doctors who are not now using this newer chlorine-carrying antiseptic are usually such as have never heard of it or given thought to its advantages. For certainly nobody, knowing the facts, would continue to employ the older antiseptic from preference. The facts can be summed up in a sentence, which is this: Chlorazene combines the utmost efficiency (against infecting organisms) with the greatest degree of safety (to the person using it). It may be entrusted to patients. It is safe to have about the house. And yet, it is up to 50 times more powerful than phenol, depending on the infecting organism against which it is used. The Abbott Laboratories, Chicago, supply handy tablets for making solutions. A sample tube may be had by writing this firm.

THE IDEAL SUPPOSITORY

There are a few physicians who would go so far as to state that they never have the occasion to make use of medication in the form of suppositories. As a matter of fact, while this form of drug administration is largely palliative in nature, it is often called for and cannot be entirely dispensed with. There are many combinations of drugs for such use. One such combination as supplied in Micajah's Suppositories has won an enviable reputation for efficiency, while at the same time it has demonstrated beyond question its absolute freedom from any unpleasant action or results. Micajah's Suppositories contain no narcotic or habit forming drugs. They are antiseptic, styptic, antiphlogistic, soothing and healing. They therefore meet the indications for the use of the suppository and any physician can satisfy himself as to their practical value by means of a clinical test. To this end it is only necessary to send a request for sample and literature to the makers, Micajah & Company, Warren, Pa.

LOCAL INFLAMMATION

Not every physician realizes that accompanying, or at the bottom of, almost every pathological condition that he is called upon to treat, lies the element of local inflammation. The phenomena to which has been given the term "local inflammation' are well known to every medical man. Unfortunately, however, few doctors realize that the pathology of local inflammation has to do with certain electrical influences and actions. As a matter of fact, the electropathology of local inflammation is just beginning to receive attention. In the treatment of this condition, which means the treatment of many ailments that flesh is heir to, local and even constitutional administration of drugs has proved disappointing. In sharp contrast to the slow and uncertain results obtained by such methods, stands out clearly cut the prompt, persistent and pronounced action and effect of Dionol.

Dionol is drugless; it does not act according to any theory having to do with drug action. It does act in accordance with certain well defined laws governing the production, aggravation and maintenance of local inflammation. It is to be admitted, possibly, that to many physicians the idea of applying Dionol to the surface of the body, over the seat of underlying local inflammation, does not promise either rapid or pronounced results. Yet clinically, such action is the simplest thing in the world to demonstrate. A clinical test of Dionol is easy to make. The beneficial results obtainable from the use of Dionol are in such cases not to be ignored or discredited. It is a case of "The proof of the pudding"—all that is necessary for any physician to do is to send a request to The Dionol Company, Detroit, Mich., for sample, literature, case reports, etc. These will be promptly sent gratis and every opportunity given to the doctor to satisfy himself that the claims made on behalf of Dionol can be easily and convincingly made good.

SAFE SOPORIFICS

The dangers attached to some of the soporifics become exaggerated when such soporifics are used in the case of neurasthenic patients, especially women. Not the least of these dangers is the possibility of habit formation. A way to obviate these possible dangers is to use Pasadyne (Daniel), a soporific of definite therapeutic potency and one free from danger and disagreeable after-effects. This advantage of Pasadyne (Daniel) gives it a distinctive place among agents of this group and makes it of unusual value in cases of neurasthenia particularly. No disagreeable after-effects need be looked for following the use of Pasadyne (Daniel). This product is merely a pure, concentrated tincture of passiflora incarnata. A sample bottle may be had by addressing the laboratory of John B. Daniel, Inc., Atlanta, Ga.

The minimal substances of the blood: vitamin hormones, cytopoietins and antibodies are contained in Deschiens' Syrup of Hemoglobin. The hematic obtained from selected live animals stimulates the hematopoietic functions of the bone marrow. The product should not be considered similar to the extracts obtained from previously killed animals, now on the market.

In Acne DERMATONE Does
ZEMATOL Does in Eczema
Use Them and Prove Them
Backed by 25 years of successful clinical experience.
Catalog of pharmaceuticals mailed on request
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645 St. Clair Street, Chicago, Illinois

CHRONIC NERVOUS EXHAUSTION

In the treatment of chronic nervous exhaustion, here may be times when sedatives are definitely indicated, but the logical manner in which to treat these cases is to improve the tone of the nervous system that it may the better stand up under increased strain. To improve the tone of the nervous system the first essential is to build up the general system. In many instances chronic nervous exhaustion exists because there is a letting down of the entire economy. Toward the building up of the general system and improving the condition of the nervous system, a reliable tissue reconstructive is necessary. For the purpose Cord. Ext. 01. Morrhuae Comp. (Hagee) is of high value. Under its administration the blood stream becomes richer and the body tissues grow stronger. The contained hypophosphites have a tonic effect upon nervous tissue. This comprehensive upbuilding influence of Cord. Ext. 01. Morrhuae Comp. (Hagee) gives it an unusual value in overcoming the condition known as chronic nervous exhaustion. A further advantage of this preparation of cod liver oil is that it is exceptionally palatable and may be used over long periods without causing distress.

SANTALWOOD OIL IN UROLOGY

In the Journal of the American Medical Association for October 22, 1921, Hugh H. Young, M.D., of John Hopkins, Baltimore, discusses "The Value of Drugs in Urology." He points out that among the innumerable drugs recommended for many generations as internal urinary antiseptics, such as santal, copaiba, cubebs, juniper, buchu, hexamethylenamin and methylene blue, etc., Santal is generally recognized as the best. Moreover, the author refers to a recent urologic plebiscite which showed that "while modern scientific investigation has tended to discredit its value, oil of santal is still in popular favor—particularly in acute gonorrhoea." It is interesting to note that of the specialists who responded to the questionnaire distributed, 80 per cent favored the use of oil of santal and the other 20 per cent went so far as to specify Arheol, which is the active principle of C.P. oleum santali.

SOOTHING THE FEVER PATIENT

One of the evil conditions that must be contended with during the management of the acute infectious diseases, is the restlessness and sleeplessness with which most fever patients suffer. The brain and nervous system are being irritated by the toxins of the infection, and as a result sleep is being interferred with and the patient is dissipating strength that is needed to combat the disease. To overcome this nervousness and insomnia, the careful physician selects a hypnotic agent that, while accomplishing its prime purpose, does not depress the cardiac or other function. Pasadyne (Daniel) has been used as a sedative in the acute infections for many years with gratifying results. It has distinct sedative properties and withal is safe. A sample bottle of Pasadyne (Daniel) may be had by addressing the laboratory of John B. Daniel, Inc., Atlanta, Ga.

Tongaline represents a complicated prescription, and its ingredients have been so skillfully combined by the most improved processes, that the full therapeutic strength of each is secured and retained. As a result, Tongaline has been successfully prescribed by thousands of physicians for over 35 years.

The treatment of Lysol poisoning is practically the same as that of carbolic acid poisoning, Lysol being a product of coal-tar oil, distilled, mixed with fat and saponified.



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IS A
PURE AMERICAN WATER

The doubt that exists concerning the pathogenesis of gout and allied painful joint conditions is not reflected in treatment.

Prompt and gratifying relief can usually be depended on following the administration of alkaline diuretics and general metabolic stimulants.

Mountain Valley Water fits into this therapeutic niche.

Mountain Valley Water comes from Hot Springs, Arkansas. It is a natural alkaline diuretic water that is at the same time refreshingly palatable and of marked therapeutic value in the painful arthritides of metabolic origin.

Literature to Physicians

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See our display at the Missouri Valley meeting, St. Joseph, Sept. 19-22

Current Comment

DIPPY DOPE FOR DOCTORS

✣ ✣ ✣

Doctors may have genius inherited from their dads,
But they don't possess the know-how of gathering in the scads.

✣ ✣ ✣

The business end of medicine, the doctor fails to see
And it will be ever thus—oh what fools we doctors be.

* * * *

Did you ever hear of farmers having a meet
To discuss how to stop the growing of wheat
Or devise a way to decrease their means
By checking the growth of spuds and beans?

* * *

Think it well over; stick it under you hat
That no set of men except doctors do that.

SHORT CIRCUIT

He—"Why did you offer so much resistance to that last kiss?"

She—"Well, doesn't Ohm's law state that the greater the resistance the more current and force will be required to overcome it?"—Science and Invention.

SOME SAY!!

"They say" the U. S. Treasury Department is preparing regulations to further limit the use of liquor prescriptions. That beer is to be prohibited as a medicine. That alcohol to one-half pint may be prescribed in ten days.

"Some say" you can get along without beer or alcohol and never miss it, absolutely.—The writer has for twenty-two years. Try it.

INFLAMMATORY CONDITIONS OF THE GENITO-URINARY TRACT

"I can personally say that Sanmetto is the one remedy I depend upon in all inflammatory conditions of the genito-urinary tract. When it fails, which is not frequent, I am at a loss to think what next to use. Have been using it for at least twenty-five years."—From an unsolicited letter received by the Od Chemical Co., New York City.

THIS IS MY DUTY

S. E. Kizer.

To use what gifts I have as best I may;
To help some weaker brothers where I can;
To be as blameless at the close of day
As when the duties of the day began;
To do without complaint what must be done;
To grant my rival all that may be just;
To win thru kindness all that may be won;
To fight with knightly valor when I must.

"I wish you would send me C. O. D. $5 00 worth of your Kola Astier (Granulated). I order it in this manner as I do not know the price of the same or the size of the container. The sample you sent me several weeks ago I find the best thing I ever got hold of for low blood pressure headaches from which I have been suffering for several years. Very truly yours, — — ————, M. D."

A WOMAN

Tonight, at dusk, I took a walk alone;
The clouds above were fleecy, soft rose-red—
My heart sang songs of joy, in undertone—
My future was assured, my cares had fled.

I gloried in my freedom—from the ties,
And cares of marriage, home and motherhood,
I'd kept aloof; and now this day the prize,
That I had sought, was mine, and life was good.

A little house I passed, with curtains thin
And straight; and low-built chimney sending out
And up, a slender line of smoke. Again,
Wishing to look at it, I turned about.

I saw a woman, tender-eyed and young,
Reach down to where a laughing baby cooed,
And gurgled; toward her, adoring arms he flung—

* * * * *

Gone my elation—gone my happier mood!

For something long pent up, broke loose in me,
And I was carried with on a tide
Of longing, lack, and loneliness; a sea
Of yearning fierce, that would not be denied.

* * * * *

O dear, my dear, if you'd come back tonight,
And whisper as you once did, long ago—
When skies were velvet, silver stars shone bright,
My answer to you now, would not be "No!"

—Patricia Lowdermilk.

PERALGA

A new synthetic for the treatment of pain, possessing a highly potentiated action, especially adapted to the relief of manifestations customarily referred to as "headaches," is the most recent addition to the list of well-known medicinal products marketed by Schering & Glatz, Inc. Known in Europe as "Veramon," and originated in the Pharmacologic Laboratory of Prof. Starkenstein, University of Prague, Czecho-Slovakia, well known for his Atophan researches, **Peralga** furnishes a rather brilliant example of the successful endeavor to intensify a given, therapeutically valuable radical in one chemical compound by synthesis with a radical of similar therapeutic properties in another. In this instance, the excellent and rational pain-relieving properties of Amidopyrine have been chemically potentiated by the highly valued sedative properties of Diethylbarbituric Acid, while the hypnotic effect of the latter has been suppressed. **Peralga** certainly appears to excel other analgesics in its pain-relieving action, especially in the promptness and endurance of the same. No injuries, or disagreeable by-effects, even on fairly continued use, have been observed. It is interesting that, in spite of the absence of hypnotic action, sleeplessness due to pain, irritation and congestion, is most favorably affected by the new synthetic. Its use is advocated in "headaches" of the habitual type, more especially those due to menstrual and climacteric disorders, nervous conditions, hysteria, mental exhaustion from overwork, migraine, etc., difficult and painful menstruation, "breast pains" of nursing mothers, traumatic pains from accidental injury, or after surgical operations, the pains of locomotor ataxia, acute forms of neuralgia, neuritis, sciatica, etc. A complimentary original tin of **Peralga Tablets** with literature may be obtained by writing to Schering & Glatz, Inc., 150 Maiden Lane, New York.

¶ The family physician of our boyhood days recognized three degrees of fever, viz.: slight fever, right-smart of a fever and a hell of a fever.

MEDICAL SOCIETY OF THE SOUTHWEST

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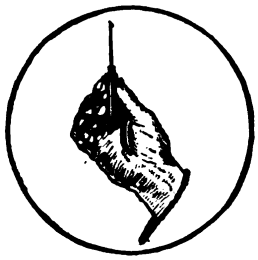
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MEDICINE—SURGERY—PHYSIOTHERAPY—X-RAY

HOT SPRINGS BIDS YOU WELCOME! OCTOBER 16-17-18

Catarrh and Common Colds

For prevention and treatment use



Catarrh "Cold" Serobacterin Mixed, Typho-Serobacterin Mixed, and Pertussis Serobacterin Mixed are now supplied in Mulford Hypo-Units, ready for immediate injection. No assembling, no sterilizing, no adjusting, used only once. Insert the needle and compress the tube. ***Four injections—four dollars.***

Catarrh "Cold" Serobacterin Mixed

in Mulford Hypo-Units

FORMULA:	A	B	C	D
M. catarrhalis.....	125	250	500	1000 million
Pneumococcus*.....	125	250	500	1000 million
Friedlander Bac.....	125	250	500	1000 million
Staphylococcus aureus	125	250	500	1000 million
Staphylococcus albus.	125	250	500	1000 million
Streptococcus**.....	125	250	500	1000 million

*Types I, II and III.
**Hemolytic and non-hemolytic, including viridans.

A sensitized bacterial vaccine, prepared from cultures usually found in respiratory organs of patients suffering from catarrh, colds, etc.

According to laboratory tests, this serobacterin imparts immediately a degree of passive immunity against pneumococci and other infecting organisms.

Susceptible patients should receive an immunizing treatment of four injections, and the maximum or "D" injection should be repeated every ninety days thereafter. When this routine is followed, relief from acute respiratory infection usually results.

Physicians desirous of including strains of influenza bacillus should specify "Influenza Serobacterin Mixed," which is the same formula with the addition of the Pfeiffer bacillus. This is the formula which was so extensively used during the pandemic of 1918 and has given universally good results for more than ten years.

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Continuing the Medical Fortnightly and Laboratory News

The Medical Herald
and Electro-Therapist
Incorporating
The Kansas City Medical Index-Lancet
An Independent Monthly Magazine

Vol. XLI OCTOBER, 1922 No. 10

Original Contributions
[EXCLUSIVELY FOR THE MEDICAL HERALD.]

PRESIDENT'S ADDRESS

PAUL E. GARDNER, M.D.,
New Hampton, Iowa

PERMIT me to express my feeling of gratitude for the unexpected and unsolicited honor conferred upon me at the last meeting of this association, and to cherish the hope that in fulfilling the duties of this responsible position I may be sustained by your cordial co-operation. It is an honor that I always will remember with pleasure to be called upon to preside over this body of medical men of the Middle West. I want to thank each and every one of you.

We meet here on our thirty-fifth annual meeting to engage earnestly in furthering the interests and objects of the medical profession.

We have come together from all parts of this our broard Missouri Valley charged with these great responsibilities. We know of no other body of professional men who gather together for a more noble purpose; with only one aim in view and that is to help our fellowman in his various bodily afflictions.

To say that the object and expectations of those who effected this organization have been fully realized is but faint praises for those noble men.

Every member of this association has received direct benefit by attending these meetings. It has not only served to elevate the standard of medicine and surgery but each session has been a post-graduate school to us all.

Physicians of national reputation have contributed to the programs from year to year, and no one is so obstinate an admirer of old times as to deny that medicine and surgery are better understood now than in any former age.

Dr. Pond in his presidential address before the Iowa State Medical Society, May 11, 1922, began by stating, "The science of medicine has made greater advances within the past thirty years than in the preceding four thousand years." While in the main this is probably true; but let us still remember our forefathers in medicine and surgery were keen observers. While some of their conclusions may seem to us erroneous, i. e., to our present day teaching and thinking, who can predict what the next generation of medical men will think of us. In Plato's time the science of medicine appears to be in a disputable condition. He did not object to treatment of acute disorders or injuries accidentally produced, but a life prolonged by medical skill with no hope for the patient he pronounced to be a long death. Plato's conclusion was, "The best thing that can happen to the incurables is to have done with life at once."

Far different was the philosophy of Bacon, whose object was to make those suffering from incurable maladies comfortable and to inspire a new hope for each day, though its sun be clouded at the horizon. Such a philosophy resembles the beneficence of the common Father whose sun arises on the good and the evil and whose rain descends for the just and unjust. By such reasoning can the dignity of the art of healing be vindicated.

Bacon well knew how great an extent the happiness of every society must depend on the physical welfare of its members. The Great Physician of the soul did not disdain to be also the Physician of the body.

We have neither time nor inclination to delve into the deep past of medical lore of antiquity, but will say it is to Egypt, that land of "pyramids and priests," that we owe most for our knowledge of the secrets of medicine as long ago as four thousand years before the Christian era.

It was many centuries after this, however, when the foundation of true medical science was laid.

Read before the Medical Society of the Missouri Valley, St. Joseph, Mo., September 21, 1922.

The eighteenth century was mostly spent in an effort to place medicine and surgery on a physiological basis and we think the last fifty years has witnessed the greatest triumphs of all previous centuries. Indeed, it seems at the present time possibly a little premature to predict that we are on the eve of still greater discoveries, which will delve deeper into the mysteries of even life itself.

While we can boast of great progress made in medicine and surgery, especially in the last decade, yet we must be mindful, this great onward movement is in danger of embarrassment. We think a note of warning at this time would be in order. I have reference to the many so-called schools of practices that are springing up over the country—so many that we will not attempt to name them here. Some of our largest daily papers, we are sorry to say, give space to these people to exploit their wonderful cures. In both cases a purely commercial transaction—having in mind, in my opinion, nothing but the dollar sign for a goal.

But we are proud of the fact that we do have some dailies and periodicals that such balderdash cannot find space in their columns. As this is a free country, and as each person has a legal, as well as a personal right to employ any school of practice he desires when he is sick, and we have no brief with either parties, what methods they use, or what is done. But when the public health of our community is effected by their practice, all laws of health ignored—then it becomes a menace to our people by spreading the diseases that we all know are, and can be prohibited, and thus rendering as useless the many brave and noble men who freely gave their lives on the altar of preventive medicine.

Under such circumstances, we think all true medical men should arise as one man in a most vigorous protest.

At this time, knowing what we do about diseases and their preventatives, we consider every case of the acute infection, as diphtheria, scarlet fever, typhoid, which appear in any community, that some one is criminally negligent and has failed to do his duty as a true physician.

I realize some may think that I am charging windmills. But I know of no subject that is more vital to the American people of today than the protection of our people from diseases that should not exist.

To censure, I may be told, is easy for any man; to show what measures the case requires is the part of a counselor.

A few years ago in a western state a man was sent to jail because, although he knew that a certain railroad bridge was down, h did not make any exertions to warn the e gineer about it. The man did not do an thing to wreck the train. He simply ke silent when he could have prevented the di aster. Consequently, he was judged guilt We must all face the same kind of jud ment. It applies not only to warning o intimate friends, but also to make a vigo ous protest to uphold our local and state la of health.

This does not mean, of course, that we a to become tiresome and obnoxious bus bodies, interferring in other people's priva affairs and telling them how they shall co duct their lives at all points.

There is a way in our personal conta with others of making clear our stand for t truth. And, in my opinion, the people w co-operate with us.

The great difficulty we must overcome sluggish indifference which so easily bese us when we think of another person's da gers. We are tempted to say, "Oh! well. is not my business particularly; it does n make any difference to me." This was t attitude of Louis XV of France, when h saw the country rushed headlong into bloody revolution.

We Americans are very prone to ma laws. In fact, some think we have too man

But while we have a large class of the so-called "doctors" in our land who disrega our health laws whenever possible, treati all diseases that human flesh is heir to—w must expect these conditions to exist. some penalty was attached, whereby the sta was compelled to pay a certain amount case of sickness or death of these cases wh contract diseases that should be prevente this would place the responsibility where belongs, and, in my opinion, be a great help to our most earnest endeavors. Then our noble profession would continue to uphold its own dignity and honor and to extend more and yet more its blessings alike to the rich and poor, the learned and the unlearned, as long as disease and death continue to effect the great human family.

The British Medical Journal gives an account of a case of 368 abdominal tappings, 506 gallons of fluid, two unsuccessful attempts to surgically remove the tumor, in a woman, during a period of six years. Death at the age of sixty-seven.

If the modern home continues in its demoralized state, will children have to be reared under some communal care?

REPORTS ON PHOTOTHERAPY APPARATUS

FRANK C. FULLER, M. D.,
Leavenworth, Kansas.

UNDER the Appellation of Phototherapy there has grown a system and technique that promises and often gives greatly desired therapeutic results.

Since the earliest times when humanity gained pleasure and health by being in the great outdoors, and obtaining the vitality and vigor which comes from good air and sunshine, there has been attempt after attempt to scientifically use light in various ways and by various methods and technique for the alleviation of body and mental ills. When the President of this Association assigned the subject of Phototherapy to your committee, the Chairman, Dr. Greene, immediately took the question up with the other members of the Committee and it was decided that the subject could best be handled and presented to you for your consideration in the form of a Symposium; and to me was assigned the duty of describing the various apparatus which is or may be used for the production of light to be used as a therapeutic agent.

I realize, and believe that you will agree with me, that fundamentally all light comes from the center of our Solar system the SUN with the exception of such light as may reach our consciousness from the distant Suns which are the centers of other celestial systems.

When I told Dr. Green, the Chairman, of the committe that I should describe the apparatus used in the production of light I gave him the list of devises to be described as follows:

First: The Kromayer Lamp.

Second: The Alpine Lamp.

Third: The Radio Vitant Lamp (made by the Burdick Co.)

Fourth: The Bier Lamp (made by the Betz Company).

Fifth: The Electric Lamp, with various cabinets and modified with variously colored screens or lamps—red, blue, yellow especially.

Sixth: Helio Therapy, or the Sun's Rays, modified by variously colored screens, red, blue and yellow especially.

I shall still adhere to the above list but feel I should have placed Helio Therapy at the head of the list, instead of the Kromayer lamp, as I doubt that even the manufacturers' agent would care to dispute the right of the Sun to be considered as a producer of Therapeutic light rays, before his company's product is considered. However, believing as I do concerning the Sun and feeling that the distinction of its being the first and incomparable producer or apparatus for light production is true, I shall consider the Sun first. That the Sun is, we all can probably agree, back of all light production and to it we are indebted for all that makes for physical life and well being. The Sun! once worshipped by most of the human family as GOD and is so considered by a goodly portion of the earth's inhabitants even at this time in the world's history.

The Sun! What can be said in a paper such as this that will be of interest to you, or do justice to the subject that is the basis of all physical manifestation as well of all light Therapy.

The study of this one producer or apparatus for the production of light has and is taking the time and talent of numerous scientific minds, and still comparatively little is known concerning the Sun itself. However, I do believe that a conception can be had of the magnitude and grandeur of this piece of light producing apparatus eliciting your attention for a time and possibly causing everyone of us to think more carefully and deeply, and thus give more time to the study of the Therapusis of human ailments, by the use of light. Sunlight on the surface of the body and Sunshine in the consciousness of an individual will drive away disease and will make for ease mentally and physically. Cleanliness is next to Godliness and where Sunlight is, Gloom, Pesimism, and disease cannot remain.

The Sun is a luminous body approximately 93,000,000 miles from the earth, which in point of distance is from the Sun, the third of the Solar system of eight planets, and fifth in size. The Sun is but one of many Stars, thousands in number, and is by no means of the larger ones in size. Arcturas, for instance, being about one hundred times the size of the earth, giving out at least 6,000 times more light and heat than does our Sun.

The Sun is about 1,300,000 times the size of the earth and is supposed by astronomers to be of a gaseous consistency with a density of about one-fourth that of the earth, with a specific gravity of about twenty-seven times that of the earth, so that an ordinary man on the Sun surface would weigh about two tons. That the Sun is in a gaseous condition is supposed to be proven by the fact that while the sun is turning on its axis once in twenty-six days it is known that the equatorial regions revolve faster than do the regions at and near the poles which would be impossible were the mass solid, so says the scientist. It is admitted, however, that nothing definite is known concerning the matter, the study of sun spots and corana of the sun is a fascinating study, and many theories are held, but no definite knowledge is

Part of a symposium on Phototherapy, read before the Western Electrotherapeutic Association.

known concerning the spots or when or how the sun renews its energy.

The Chromosphere surrounding the sun is of a gaseous condition and since the Spectroscope has been used by Astronomers they have been able to determine that the Sun's Chromosphere contains most of the various metals found in Chemistry such as iron, calcium, magnanese, nickel, barium, sodium, copper, sulphur, hydrogen, strontim, and potassium, all in a gaseous condition, which at all times is held together by gravity as well as is the mass of the Sun itself. The Chromosphere composed mostly of hydrogen, and the Sun itself, emits energy in the form of light and heat, by means of vibration of the smallest of material manifestations, the so-called electron of the scientist. How light and heat is transmitted will no doubt be taken up by Dr. Greene in his discussion of the physics of light. Suffice it to say that the Astronomers in their deliberations figure that it may be possible that millions of years hence the sun will begin to cool, and in time lose all its heat and light, which is manifested by vibration. What has been said about the sun is an attempt to interest you in the sun which is the primary mechanism for the production of light. Sun light is applied to the surface of the body to any degree and to any amount of surface at the operator's desire, by means of windows and proper covering and is modified by variously colored glass screens at the operator's option.

The apparatus which I shall now endeavor to describe depends fundamentally on the sun, which by countless eons of time has stored energy in the form of coal and oil, or has evaporated water, and clouds have formed, and the falling rains made possible the rivers and lakes, from which energy may be drawn to produce that form of energy known as electricity, to whose efficacy all mechanical contrivances for the production of light for Therapeutic purposes owe their possibilities.

The Kromayer lamp is one of the latest and best of the various methods of using modified sun light for Theraputic purposes. The lamp itself is of a very simple construction, a "U" shaped glass tube with the convexity upward, held in a receptacle in which the two ends are fastened. In one terminal of which is a pole of the direct electric current, in the other the negative pole. The "U" tube is partially filled with mercury which covers the positive and negative terminal. The entire tube and terminals are firmly fixed in a metal box, so arranged that a small chamber surrounds the inverted "U" tube. The light being produced by the direct electric current passing through the mercury vapor. A window of quartz glass between the light made by the electric current passing through the mercury vapor and the various forms of appliance of quartz glass for directing the light to be used for Theraputic purposes over any given surface, completes the housing of the "U" tube, making a chamber between the "U" tube and the quartz window through which a stream of cold water circulates, thus preventing the tube from becoming overheated and causing it to break. A reostat provides for regulating the amount of current going to the terminals of the direct current which are immersed in a mercury bath. Thus regulating the amount of light being delivered through the quartz window to be applied to whatever diseased condition is being treated.

The ALPINE lamp is built for the same purpose that the Kromayer lamp is, with this difference in its construction. The mercury vapor is diffused over a greater area, the tube containing the vapor is flat, and not "U" shaped as in the Kromayer lamp, and the tube is air cooled and not water cooled, therefore the light can be applied over a greater surface The metal shield or covering surrounding this lamp is so constructed that any degree of limitation can be had in directing the light to the surface to be treated. Thus obviating the necessity for a flowing stream of water to cool the mercury arc, thus making this lamp preferable in many ways to the Kromayer lamp. You no doubt all remember the old Hewit (lamp) mercury vapor lamp used for photographic purposes in studios; and making possible the taking of photographs at any time during the twenty-four hours obviating the necessity of sun light in the production of photographs. You will remember it was the action of the Actinic or Chemical rays which acted on the silver salts of the photographic plate. The chemical or actinic rays of light thus being in evidence long before being used for Therapeutic purposes. The lamps which have just been described depend on the Actinic action of rays produced by vibrations in number above those required for producing solar spectrum and are called Ultra-violet rays. The Theraputic action depending on these rays, the Actinic and Ultra-violet, which have been separated from the heat rays of the light by means of quartz glass. The electric arc light has been used for Therapeutic use but is not used to any extent at this time. The Finsen Light is obtained by passing the Sun's rays through a lens containing a solution consisting of ammoniacal copper sulphate which removes the yellow, red and ultra red rays leaving the violet and ultra violet rays which give the Therapeutic effect, other methods of producing the ultra violet rays are now preferable.

The RADIO VITANT lamp (Burdick) consists of four lamps with a carbon filiment so arranged in series that the light from one or all can be reflected upon any surface. The

lamp has an oval shield with a highly polished surface in which the four lamps are held. The shield and lamps are supported on two iron legs so arranged that the whole apparatus will not fall from side to side and can be raised or lowered as desired. There may be any modification of the above principle as may suggest itself to the manufacturer of apparatus. The BIER lamp consists of a large incandescent globe of either 500 or 1,000 watt capacity set in the socket at the apex of a bell shaped copper shield.

The Electric light cabinet consists of a box about four feet square metal lined, with either a single or several rows of sockets around three sides of the box, in which 30 or 40 or more, 30 or 60 watt lamps are placed, to be turned on in series until the desired temperature effect is produced.

Various colored globes may be and are used depending upon the effect desired. The cabinet or box is so arranged that a person enters from the front and is seated on a stool, the door and top inclosed with the patients head outside the cabinet. The door usually has a glass window so that the operator can see within the cabinet, and a thermometer is so arranged that the temperature can be ascertained. Cabinets are made in various shapes and sizes at the fancy of the owner, but all work on the same principle. The physical properties of light and its use as a Therapeutic agent will now be taken up and discussed by Dr. Greene.

SYMPOSIUM: PHOTOTHERAPY—PHYSICAL PROPERTIES

LYNNE B. GREENE, M. D.,
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YOU have just been presented with an excellent description of each piece of apparatus known to the field of phototherapy. Until I heard the several preceding discussions on the use of the various apparatus, it was my purpose to present in detail the physical properties of each. I think it superfluous for me to repeat much that has been said and it will conserve our time considerably to make emphasis upon only one fact that may be overlooked by physicians contemplating this particular branch of physical therapy: The outstanding importance of knowing the physical properties of each apparatus.

To have a thorough knowledge of each apparatus means, to speak comparatively, to as thoroughly know the physiological or chemical properties of the rays as what are physiological or chemical effects of drugs in use.

In another paper to follow in this symposium you will hear about the clinical application of phototherapeutic apparatus. It is impossible to predict what to expect clinically unless the physical properties of the light or ray about to be used in a given case are known. Results cannot be expected from any ray or light used in a haphazard manner without knowledge of its physical properties and their degrees of effectiveness within given dosages. Also, it soon becomes apparent that one single piece of apparatus has several physical properties according to the method of its application or what field of tissues are exposed. In other words, determine what shall be done in a given properly diagnosed case because the physical properties of the light or ray are understood. Only when we have made a correct diagnosis and have applied the correct phototherapeutic ray or light can we expect clinical results. No unit of phototherapeutic apparatus is a panacea. In fact, one apparatus may be only a stepping stone to the use of another light or ray, which in turn may prove only intermediary, thus bringing the case to a stage where still another unit of phototherapeutic apparatus may be indicated to bring the case to final relief.

And so, it is my point to emphasize over again the necessity for deep study of each unit of phototherapeutic apparatus. Study each of its details, know the how and why of its physical properties. If radiant light should be used, know why from a physical property standpoint. Learn also that radiant light has several forms of application, using that which emphasizes the chosen physical property.

Just so when using ultra violet rays. Know thoroughly the units of apparatus. Learn the difference between the properties of an air-cooled and the water-cooled apparatus, that among these is a distinction between biological effects in the air-cooled apparatus, as differentiated from the anti-parastic effects of the water-cooled apparatus. Learn also the effect of pressure in the degree of dehaemetization of the tissues, the depth of an application and what is produced through the chemical, constructive, anti-parasitic or biological properties of the light under these various conditions.

Physical properties in a given apparatus which will reach general conditions may not touch those which are localized, and vice versa. Often it will be found that a combination of pigment filtration through a series of exposures may bring the desired effect. Yet, it must be emphasized there should be no experimentation in view of our present knowledge of these physical properties. Sufficient literature and other sources of information are at hand, so that no physician need experiment. A man may buy a paint brush and off hand produce a marvelous picture, but the chances are he

will not. He must zealously study the limitations and possibilities of the brush, sit at the feet of the masters of art. And my understanding and appreciation of this association are in its endeavors to nurture a complete understanding of all properties of electrotherapeutic apparatus that physicians may render better service.

Now just a word in conclusion. Much has been said within medical circles, and without, regarding the adoption of all sorts of physiotherapeutic apparatus, and playing a most important part are those in the field of phototherapy. Phototherapy has been exploited to such an extent there has resulted attempted explosions of scientific facts, with replacement by fancies that are not altogether innocuous, even among the patients.

Medicine will only come into its own when physicians have better prepared themselves in a knowledge of the real properties of their equipment. The only reason why patients rush hither and thither is because they frequently surmise that the physician may not understand his apparatus or their conditions. The secret of good work in phototherapy lies in thorough preparation and an understanding of the physical properties within this particular field.

¶ The following conclusions are presented by Dr. James P. O'Hare on Blood Pressure readings: (1) Take your readings three times. (2) Make observations on the pressure at intervals before you draw any conclusions. (3) Let your conclusions be the result of a careful general study of your patient and his pressure. Let them be conservative. (4) As yet there is no therapeutic measure that uniformly does as much to reduce pressure as mental and physical rest. (5) Do not discuss the height of blood pressure with the patient.

DREAM INTERPRETATION

To dream of nakedness usually means chilliness of the skin. To dream of flying or moving through the air by merely flapping the arms or by some absurd means, is apparently due to respiration feelings. To dream of falling associated with emotions, is often due to the spasmodic contraction of Genito-urinary muscles, as of wetting the bed.

DAVID S. DANN, M. D.,

Announces the opening of his X-Ray Laboratory, Suite 326-332 Lathrop Building, Kansas City, Mo. Practice limited to roentgenology, both diagnostic and therapeutic. Specializing in combined fluoroscopic and teleroentgenographic studies of the heart and great vessels.

SYPHILIS OF THE EYE POINTS IN DIAGNOSIS

By L. HERBERT LANIER, M. D.,
Texarkana, Ark.-Texas.

A STATISTICAL analysis of the Incidence of Syphilis among cases of Ocular disease, made by various investigators, served to impress the importance of this subject upon me perhaps more forcibly than those cases I have encountered in private practice for instance, Santos Fernandez found in the Havana clinic out of 50,250 cases of eye disease treated during 39 years that 16,697 were due to Syphilis, of this number 987 were cases of Iritis, 547 were fundus cases, 142 of paralysis and 30 were diseases of the lids or of the bones of the Orbit.

Harman found in 1,100 cases of blindness of children 34 per cent were due to Syphilis.

Mason, Mackie and Smith to ascertain the frequency of Syphilis in various Ocular conditions submitted 250 cases to the Wasserman test, of 63 cases of Interstitial Keratitis 89 per cent gave a positive reaction which was marked even though the disease had been long quiescent, of 50 patients with Iritis or Irido-Cyclitis 54 per cent proved Syphilitic, of three cases of Cyclitis all gave negative reactions and in 26 cases of Choroiditis only 5 were positive, three cases of Retinitis Pigmentosa, 5 of detached retina, 4 of Sympathetic Ophthelmia gave negative results.

Among 21 Optic Atrophies 12 gave a positive reaction as did 7 out of 13 cases of palsies of the Ocular Muscles.

These writers conclude that outside of Ocular Injuries Conjunctivities Cataract and errors of refraction half of the cases of Ocular disease may be due to Syphilis.

Adolph Pfingst very properly remarks that when we consider that an average of 3.2 per cent of all cases of syphilis, acquired and congenital, are associated with some eye involvement; that 2 per cent of all eye diseases are of syphilitic origin and that from 14 to 15 per cent of the world's blindness is caused by this disease, we readily realize the importance of the subject.

The disease may involve any part of the eye and may do so directly (either primarily or through the blood stream) or by an extension of the syphilitic process from neighboring organs. According to Graenow's tables in Graefe-Saemisch System of Ophthalmology, 1904, lues effect the different parts of the eye in the following frequency: Uveal tract, which includes the iris, ciliary body and chorioid, 43.2 per cent of all cases; Optic nerve, 24 per cent; muscles 15.5 per cent, retina, 6.3 per

cent; cornea, 4.1 per cent; lachrymal apparatus, one-third per cent; lids and conjunctive, 1.1 per cent; orbit, 0.2 per cent; sclera, 0.1 per cent: leaving 4.2 per cent unaccounted for. According to the figures at Pfingst's disposal it seems that in 50 per cent or more the cases of ocular lues, both eyes are involved, this being especially true in the complicated diseases, such as: Irisdochorioiditis, Chorioretinitis muscle paresis, etc. It occurs at all ages but by far the greatest number of eye cases complicating lues are found between the ages of 20 and 40. Two-thirds of the reported cases occured in the male.

The Ocular findings in hereditary syphilis are very interesting. Stieren says that 50 per cent of syphilitic fetuses are still born and of the remainder 80 per cent develop ocular disease. Tarsitis and Dacryocystitis secondary to syphilitic rhinitis. He has met with a case of blepharitis which he believes was due to syphilis. Parenchymatous Keratitis is not pathognomonic of inherited lues, for it has been noted in acquired syphilis, tuberculosis, rheumatism, gout, influenza, and uterine affections. The following complications may be met with, viz., irido-choroiditis and iritis, lems opacities, glaucoma, bullous keratitis and keratomalacia.

Iritis is rather uncommon. It may occur quite early, even before birth. On the other hand it may appear much later in life, between the ages of 10 and 20 years, usually affecting but one eye. It presents the following varieties: The serous form, the gummatous form and a form mixed with keratitis.

Choroditis is seldom acute but nearly always prenatal Stieren adopts Hugenin's classification. In the light form there are scattered, small, reddish-yellow spots, with fine, pigment points, usually limited to the periphery; the disc may be pale; visual field slightly contracted; visual acuity never quite normal, little tendency to progress.

Then we see pronounced pigmented foci, isolated or conglomerate, preferably peripheral, visual acuity unaffected. This type is often found after sudsidence of interstitial keratitis and is usually stationary.

The application of the Wasserman reaction and the luetin test in ophthalmology has been studied by Machie and Manson. In 250 cases, including 29 forms of ocular disease, they obtained 125 positive Wasserman reactions, 122 negative and 3 doubtful. Different conditions varied greatly as to the relative frequency of positive reactions, from 56 positive to 7 negative in interstitial keratitis and 13 positive to 8 negative in optic atrophy; to 1 positive and 8 negative in strumous keratitis. In iritis and irido-cyclitis there were 27 positive to 22 negative and 1 doubtful. In choroiditis and choroidal atrophy, there were 5 positive to 20 negative and 1 doubtful; and in retinitis pigmentosa all were negative.

I have found that my most interesting cases of ocular lues manifested Corneal involvement —Interstitial or parenchymatous keratitis. And changes in function and structure of the optic nerve.

The chief causes of Interstitial keratitis are hereditary and acquired syphilis. When due to hereditary syphilis it may affect individuals between the ages of five and forty-five years. It occurs most frequently in children between the ages of seven and fifteen years. The sexes are affected with about equal frequency. Some writers think it more frequent in females than in males. Recovery is gradual, beginning at the periphery where the cornea first becomes transparent again, while at the same time the vessel grows constantly fewer. The center of the cornea remains opaque the longest, but finally clears up until there is a faint cloudiness which causes but little impairment of vission. This cloudiness and a few minute vessels, which are visible only with a high magnifying glass, can still be made out years afterwards and are certain signs of the previous existence of a parencymatous keratitis.

Local treatment of luetic interstitial keratitis consists in protecting the eyes from the light and by instilling atropin. Often it is impossible to obtain an adequate dilation of the pupil with atropin. Probably the atropin does not diffuse through the inflamed cornea to the same extent as it does through a sound one. Moist hot compresses often relieve the symptoms of irritation. Dionin act favorably on the photophobia and the pain. When the opacity begins to recede dionin should be employed, or calomel or yellow oxide of mercury be dusted into the eye. The aim is to get as clear a cornea as possible.

In the general treatment of the disease arsphenamin may be combined with calomel 1/10 gr. four times a day. Fresh air, exercise and good food should be provided. In the lighter cases we may confine ourselves to simple tonic treatment, with the employment of remedies containing iodin, syrup of iodide or iron, cod liver oil with iodin.

Fradkine advises giving small doses of salvarsan every 48 hours in order to obtain continued action on the cornea. Blepharospasm, photophobia and excessive vascularization are more favorably influenced by salvarsan than by any other drug.

Waldman used diathermia in interstitial keratitis with excellent results.

Koenig has reported three cases cured with salvarsan, improvement being rapid in body as well as in the eye. Hicks reported five cases treated with 1/2 to 1/5 gr. of mercury bichlo-

ride dissolved in 20 cc. of sterile normal salt solution and injected intravenously every four days.

Ingersheimer found neo-salvarsan most effective in interstitial keratitis. Rosenmeyer has used it locally for the condition, which had resisted previous specific treatment. The process was promptly checked and gradual clearing up of the cornea followed.

Syphilis ranges third in the etiology of optic neuritis, there is swelling of the nerve head which projects beyond the retina. All degrees of papillitis may result from syphilis, the disease may be acute or chronic, the prognosis must be guarded. The usual antisyphilitic remedies should be used with the greatest vigor. Salvarsan is advised by some authors while others avoid it in all nerve affections.

In a syphilitic suffering from a hyperplastic sphenoiditis and ethmoidal abscess, an intravenous injection of salvarsan was given, and two days later vision was very much reduced. Charles in reporting this case, believes it is preferable to use mercury injections and inunctions rather than to give salvarsan where the optic nerve is already involved.

Stieren has seen optic neuritis improve rapidly under salvarsan, but with more secondary atrophy than when treated with mercury. He believes that salvarsan induces optic atrophy, and that patients should be warned that their sight may be worse after the administration of salvarsan or neo-salvarsan. Arganaraz reports 28 cases in which grave lesions of the uveal tract and cranial sensory nerves followed the therapeutic use of arsenobenzol. He believes that optic neuritis occurring after the use of salvarsan, whether it be from syphilitic or arsenic poisoning, is aggravated by additional injections of salvarsan. In patients attacked with optic neuritis, therefore, the use of the drug is contraindicated, and since optic neuritis may occur without obtrusive symptoms, it should be looked for with the ophthalmoscope before salvarsan is given.

Spiller and de Schweinitz have observed three cases in which removal of a few cubic centimeters of cerebrospinal fluid has had a remarkable effect on the swelling of the optic nerves. In the first patient a decrease of one diopter was noticed after each lumbar puncture. Personally I think it advisable to use salvarsan after the acute stage is over.

Syphilitic Optic Atrophy is of more frequent occurrence than usually supposed. Among 19,838 patients Kirkpatrick observed 44 cases of optic atrophy of syphilitic origin, of these 34 occurred in males. A typical case is as follows: I treated a male patient 24 years of age, in 1920 in whom vision was reduced to the faintest light perception. When he came to me in February I gave him the classica antisyphilitic treatment potassium Iodide mer curial Inunctions alternated with one-twentiet grain injections of Bichloride of Mercury an eight injections of Neo-Salvarsan. He improv ed to hand movements at 18 inches in thre months' treatment. A Wasserman test wa positive 4 plus. In the beginning both pupil were moderately dilated and neither responde to light or accommodation. Ophthalmoscopi examination showed nearly complete opti nerve affections of syphilitic nature. And tha the medication must be introduced throug the cranial subarachnoid space or the ventr cles of the brain but I have given no ventricu lar injections of Mercury and shall if the oc casion arises again first try the usual method before doing a trephine operation to reac the ventricles. Certainly my results in this cas have been as gratifying as they are for thos who inject Mercury into the Ventricles.

Neo-Salvarsan certainly manifests a greate more rapid, and more constant therapeutic ac tion than mercury or iodine in syphilitic dis turbances of the eye. Mercury and iodin when combined with Neo-Salvarsan, are mor stable and more intense in their action. I cases of increased ocular tension, secondar to affections of the uvea, the beneficial actio of neo-salvarsan is definite and more rapid tha that of mercury and iodin.

As to the possible ill effects of salvarsa both of the optic nerve and the motor nerv of the eye, opinion is still divided. Tranti saw Ophthalmophlegia develop eight weel after the use of the drug. Among 370 cas treated with salvarsan, five ocular muscle pa sies have been reported, while Stern four only three instances among 5,000 cases syphilis.

The contraindications to its use, are disc ders of the general circulation, long-standi tabes, chronic nephritis, diabetes and old ag Serious lung disease other than tuberculos visceral lues, gastric ulcer, alcoholism, deg erative changes of the nervous system, a febrile conditions.

As a summary of the chief facts regard Ocular syphilis we find:

1. That primary syphilis which is not a gether uncommon usually affects the conju tiva of the eye lids and eye ball.

2. That at the time of the cutaneous er tion, the iris is a frequent seat of manifestat of the disease, as is also the rest of the u tract.

3. That in the long period between eruption and gummatous formation, the u tract is involved early in the first year or m and the optic nerves somewhat later, or so times many years after the infection.

4. That after this quiescent stage and the ppearance of gummatous formations we have ie lesions of the ocular muscles.

5. That in the one disease, which above all thers occurs as a manifestation of congenital yphilis, the presence of lues can be demonrated in about 75 per cent of cases.

6. We also learn that through early diagosis of the syphilitic affections of the eye folwed by prompt and energetic treatment the rognosis in most of these cases is better than former years.

State National Bank Building.

THE PHOSPHATIC INDEX, OR PULSE OF THE NERVOUS SYSTEM

By J. HENRY DOWD, M.D.,
Buffalo, N. Y.

IT IS an interesting fact, worthy of passing notice: It takes much time and patience to introduce new facts or theories to the medical profession, and more time and patience to have them adopt a new procedure, however valuable it may have proven to the originator.

But why should an originator worry, in other fields of work, as inventions, etc., has it not been the same?

In bringing before you the subject of nerve metabolism, with certain attempts to measure and regulate nerve energy, the above words apply. However, I trust that you will become interested sufficiently in the subject that you may try this simple, quickly carried out and inexpensive test that reveals so much to you.

It is the writer's contention that nerve metabolism, and the measurement of nerve energy is extensively associated with the excretion of the alkaline phosphates found in the urine.

While the metabolic process of the general system, to speak broadly, is measured by the amount of urea eliminated, the metabolic process of the nervous system may be measured by the amount of phosphorus compounds eliminated in the urine in the form of alkaline phosphates.

We all know that phosphorus is an all-important constituent of the nervous system, and a relative increase in or decrease in phosphoric acid elimination is due to nerve cell metabolism.

Dealing with the physiology of the nervous system, we must assume that the nerve cells are prepared for their work, or usual outlay of energy by food or substances that nourish them, and in common with other systems of the body, there is a large reserve of nutriment that may be called upon in times of need.

Prof. Shaw, in his admirable work on Nervous Diseases, when speaking of neurasthenia, says: "The inherited state of the nervous system (we know now that neurasthenia is as frequently acquired) is evidently due to some defect in the power of the neurones, whereby the cells are not capable of receiving and restoring sufficient nutrition or food to supply the normal daily calls for energy."

The substances concerned in the nourishment and upbuild of the nervous system include chiefly nuclein, lecithin and phosphorus.

Nuclein is a complex body found in the yolk of eggs; it is present in all cell neuclei.

Lecithin is a highly complex fat, containing nitrogenous substance, in which phosphorus is present in large amounts; the latter is a constituent of every cell, thus showing its indispensibility to life.

Metabolism of the nervous system shows itself by the presence of alkaline phosphates in the urine as end products of lecithin, nuclein and phosphorus; the amount present depends greatly on the decomposition of the above substances.

We have an increase of alkaline phosphates where there is a hypersensibility or irritability of the nerve cells or neurones, and we find that if such a condition is allowed to continue unchecked for any length of time, sooner or later there will be a decrease, as will be shown by the phosphatometer, and a condition of neurasthenia, or nerve tire will result.

Phosphoric acid occurs in the urine as calcium and magnesium phosphate and sodium and potassium phosphate. The first variety we find in freshly passed urine, or they may appear on boiling. These appear under the microscope as fine saw dust, so to speak; they are never crystalized.

This variety has practically no clinical significance, and unless present in amounts sufficient to cause marked opacity, when they must be filtered out, they have no diagnostic value and may be dropped from further consideration.

The alkaline variety which occur as sodium and potassium phosphate, appear only after precipitation, and as crystals, which, if normal in shape, resemble the fern leaf.

The instrument or apparatus used for measuring the phosphatic elimination, and which I named the Phosphatometer, is a simple cylinder with graduation showing the amount of urine to use, the amount of solution to be added, and the percentage of alkaline phosphates present.

Read at annual meeting Missouri Valley Medical Society, St. Joseph, Mo., September 21, 1922.

The modus operandi for ascertaining the Phosphatic Index is exceedingly simple, fully as simple as the apparatus itself; it takes but ten minutes, and can be carried out by anyone, only a little reasonable care is necessary in its reading.

ALWAYS USE THE SECOND URINE PASSED IN THE MORNING.

Fill the Phosphatometer with urine to U, add solution* to S, shake thoroughly and set aside for ten minutes. A whitish precipitate should form at once, and which will sink in the Phosphatometer according to the amount present and the specific gravity of the crystals.

If the precipitate sinks to NP, in a practically solid condition in ten minutes, it may be considered as normal, and if the crystals appear in a similar condition, the nervous system as a causative factor in any condition, no matter what be the symptoms, may be eliminated.

As an example, briefly, the following case of a doctor may be sited: For three or four weeks he had suffered severe pain in the arm, the diagnosis of which was brachial neuritis. All sorts of medication had been used before the writer was consulted as to an index. This was found to be NP (solid) and an opinion given that the cause was not due to nerve cell involvement as to nourishment, or excessive use of the reserve, no excess of uric acid being present, that also could be eliminated, but was due to pressure and to consult a surgeon. This was done; pressure was found and, relieving it, the pain ceased at once.

When the precipitate sinks in a practically solid condition, but remains above NP, it is known as plus, and the reserve is being drawn upon to the extent as indicated on the Phosphatometer.

In acute cases, as the following will show, sedatives, as the bromides or elixir valerinate of ammonia, will produce not only quick, but permanent results, because, in contradistinction to the use of morphine or other sedatives, the cause is treated instead of symptoms.

Case No. 1. Mrs. G. (case of Dr. Clemesha's.) Sudden and acute pain in the back and legs. Temp. normal; pulse greatly increased, due to nerve excitement; no cough or indications of rheumatism. An index was taken at once; 75 per cent plus (solid) and sodium bromide, grs. 15, in elixir valerinate of ammonia one teaspoonful every two hours or so in half a glass of water. Pain subdued in about 40 minutes, and was entirely absent in two hours; she continued the me cine for two or three days; it never return

In contradistinction to the acute conditi case No. 2, of a lady with brachial neuri is most interesting.

For over a year she had complained of vere pain, not constantly, but lasting fo week to ten days at a time in the shoul and arm. Diagnosis was clear, brachial n ritis. She had undergone all sorts of tre ment, both locally and systematically, medicine, electricity, etc.

Careful examination of the urine revea no pathological condition, an index of per cent plus (solid). This being conside a chronic condition, a preparation of g bromide and arsenic was ordered at on ten drops in water, increased one drop da to twenty. Pain subsided about the seve or eighth day, entirely ceased in two we and never returned.

Where the precipitate does not sink, si but part way and is light and fluffy, or g below NP, it is considered as minus, and due to a want of nerve cell nutrition; in ot words, the reserve is depleted. (Had c No. 1, with an index of 75 per cent plus, b allowed to continue unchecked, the rese would have become depleted to an ext that the same phenomena would have ta place as did in case 2, which after the co plete relief from pain, the index in about t or three weeks fell to 50 or more below n mal; she had no pain, but a very mar neurasthenia condition, which took some ti to bring back to normal.)

The following case must show the gr value of ascertaining the true cause; think the suffering that could have been obvia had it been discovered earlier:

Mrs. W., for about nine months had b almost a helpless invalid. Pain at first of definite nature in the back and should as time passed involved the entire body such an extent that it was impossible for to dress herself unaided. Long contin treatment for rheumatism gave practically relief; she spent six weeks or more in a sa tarium, where she was treated with baths a electricity, but no relief.

Upon the writer seeing her, a careful amination revealed nothing pathological, b a profuse leucorrhea, due to a lowered sisting power; she had never been pregna nor had she any evidences of disease of infectious nature. The urine was alkaline reaction, and showed an index 95 per c below normal; in other words, there w practically a complete depletion of the serve. Owing to the apparent irritabil that was present, and an obstinant consti tion Fl. ex. valerian drops 15 with res. po

*Mag. sulphate, Ammo. Chlor. Aq. Ammo. (10 per cent) common variety used in a household, of each one ounce, water 8 ounces. Let it stand a day or two before using.

ıylin gr. 1-10 was used in connection with phosphorus mixture (30 drops) three times day in milk half an hour after meals.

The result in this case was most surpris-ıg. In three days the pain commenced to ıbside, in ten days it was absent; she could ress herself for the first time in over six ıonths. At the end of a month she had ained 17 pounds in weight, leucorrhea had ntirely disappeared; at this time the index ras 10 per cent minus. (It might be stated, ıe urine changed from alkaline to acid about he third or fourth day after commencing reatment.)

More surprises were to follow. About four ıonths or so after her last visit, the lady and ıer husband called, and, with a smile, asked or an examination of the urine. The index was found practically normal, but a great majority of the crystals appeared minus the ronds. She admitted she was now four weeks overdue; she gave birth to a child eight months or so later.

A few words as to the crystals. These the writer has divided into five groups:

(a) Normal, about 1-3 inch (using ½ in. Objective) in diameter with well-formed fronds.

(b) May assume different shapes, but all having star-like appearances, the same as normal ones. In this variety the fronds appear saw-tooth like, and are of less density than the normal ones. (This form, using the red cells as a criterion, show a want of nutrition, as the red cells show a want of hemoglobin.)

(c) Normal in shape, but the great majority are minus the fronds, simply appearing as stems. This is indicative of pregnancy between the third week and the end of the third month of utero-gestation. (Year book of 1896.)

(d) Amorphous. These may be of normal size, but have no stelate appearance, and generally no fronds; the sides are straight lines. Although the writer has observed these eleven times, nine of which ended in insanity and death, great care must be used before expressing a positive opinion. The excessive use of tobacco, morphine, cocaine, and other similar drugs or alcohol in excess, 48 hours previous to viewing them, may produce such crystals, which, of course, is only temporary.

(e) The crystals appear normal, with well-formed fronds, but are very small, not over ⅛ in. in diameter. This shows a very excited condition of the neurones or cells, and is usually found in hysterical condition. If there is any truth in the statement that at least 75 per cent of human illness that we are called upon to treat is of a functional nature, that is, there is no underlying pathological cause to account for the condition, and that the teeth, tonsils, sinuses, etc., have dismally failed in their effort to assume the role of cause, as is made plain to us every day by patients who have been operated upon, is it unreasonable to suggest a look at nerve metabolism, the brain being the seat of all life, and the origin of every thought, word, deed or action of the individual?

437 Franklin St.

STUDIES ON THE SELECTIVE ULTRA VIOLET RADIATION IN THE PREVENTION OF EXPERIMENTAL RICKETS

A. J. PACINI, M.D.
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I.

IT IS definitely established that exposure to sunlight prevents the development of rickets in rats, that, under experimental control of the diet, would, in the absence of sunlight, quickly and definitely lead to rachitic lesions (1) (2). Hess has indicated also that in providing solarium facilities for the cure of rickets, glass must be omitted; for although heat and visible light rays pass practically unobstructed through glass, the fraction of the radiations which cure rickets fails to traverse window panes. (3).

Before discussing its relation to the prevention and cure of rickets, a summary of the characteristics of solar radiation essential to the correct understanding of the problem, is obviously pertinent. Qualitatively, Solar radiation is classified in three groups, infra-red, visible and ultra violet, depending upon the constituent wave lengths. The visible portion is included approximately between the wave lengths 7200 and 4000 Angstrom units; radiation of wave lengths greater than the visible red (7200A) is termed infra-red; radiation of wave lengths less than visible violet (4000A) is termed ultra violet.

Quantitatively, the intensity of the radiant energy from the sun varies in different parts of the spectrum. Its maximum value is in the blue green; from which position it decreases rapidly toward the red, and still more rapidly toward the violet. Exact values for the relative intensities have been produced under various atmospheric conditions, and from the more accurate studies on this topic, it is possible to furnish the accompanying chart, in which:

Curve A—General distribution of energy in solar radiation before entering the earth's atmosphere.

Curve B—Energy distribution observed on Mount Whitney (elevation 14,500 feet.)

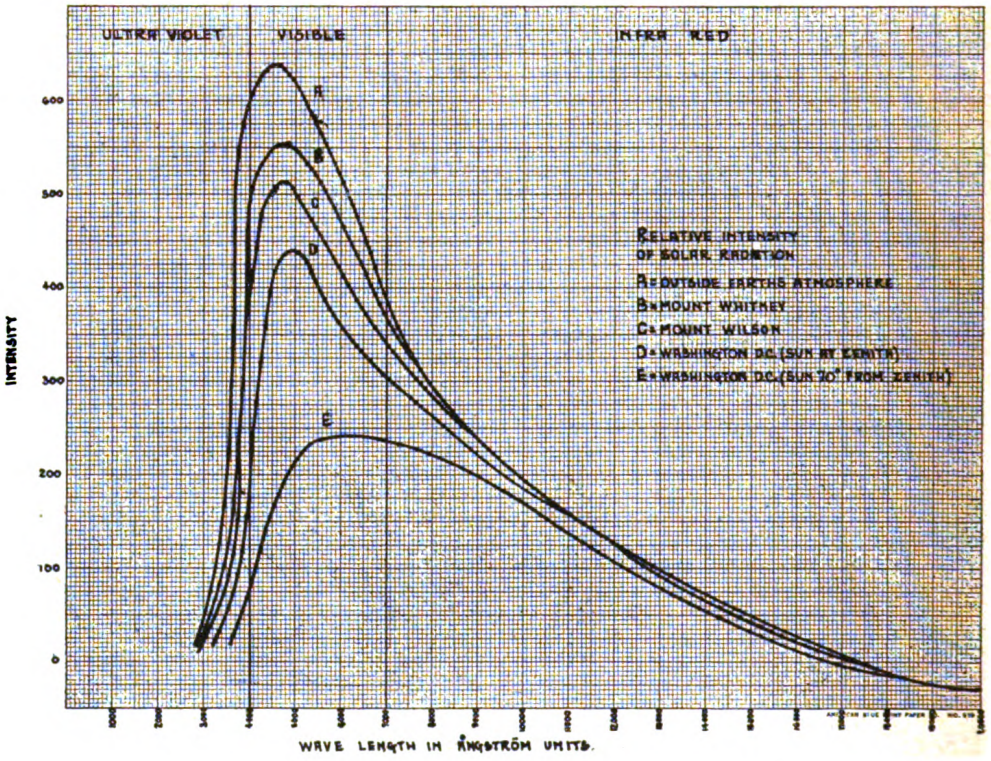
Curve C—General distribution of energy on Mount Wilson (elevation 5,680 feet).

Curve D—General distribution of energy at Washington, D. C., with the sun at zenith.

Curve E—General distribution of energy at Washington, D. C., with the sun at 70 degrees from zenith.

(The data are compiled from the Smithsonian Physical Tables).

In addition to the relative intensity of Sol radiation, represented in the curves, it is d sirable to know in absolute measure the i tensity of the radiation. Recently, much a tention has been devoted to the investig tion of the rate at which radiant Solar ener would be received at the earth in the a sence of atmospheric absorption. The e dence gained through these researches poi to the fact that the Solar constant, (Co), this rate is called, is subject to periodic v



As the energy arrives inside of the earth's atmosphere, both the total and the relative spectral distribution are changed, owing to diffuse reflection and absorption by the atmospheric gases, moistures and dust particles. It will be noticed that the shorter wavelengths are absorbed most by the passage through the atmosphere, and the longer wavelengths are absorbed least. Effectively, as the altitude decreases, the Solar radiation displays a relative increase in its maximum red intensity, and a marked diminuation of the Ultra Violet radiation to a very small value; from which it appears that Solaria utilized for heliotherapeutic measures should preferably be located at the highest convenient altitude where the atmospheric occlusion of Ultra Violet energy is a minimum.

riations amounting to about 7 per cent; b with the earth at mean Solar distance, t average is:

Co = 1.93 gram calories per square cen meter per minute.

or,

= 1.34 x 10-1 watts per square centimete

This value is much reduced at points wi in the earth's atmosphere (owing to abso tion and diffusion, as discussed). For the g graphic points named, under reasonably fav able observation conditions, the values for Solar constant are given as:

Estimated for no atmosphere... Co = 1.9
Mount Whitney (14,500 feet).. = 1.7
Mount Wilson (5,680 feet).... = 1.6
Washington, D. C..... = 1.3

The value for the Solar constant is affected the season of the year, it being at a minimum during the winter months, because of e remote displacement between the sun d the earth; and there is much to show at the seasonal variation of the incidence rickets is in close relation with the increasing and diminishing values for the Solar nstant, due to summer and winter (4). Alude also affects the value for the Solar conint, higher altitudes showing a greater lue. Atmospheric moisture and added seous impurities tend to diminish the value a marked degree.

Speaking now of the Ultra Violet region Solar radiation, investigation shows this rt of the spectrum to be included within limits of 4000 and 2900 Angstrom units. d the factors that alter the value for the lar constant, such as season, altitude and nospheric condition, affect, with even eater variations, the value for the intensity the Ultra Violet, which may be called the lar actinic constant. A most recent sumry of this important topic is to be found the work of Dorno (5), who, in addition a review of the work of others, includes o his valuable findings obtained at Davos. udying the daily changes of the Ultra Vio in sunlight, which he did through the use photo-electric cells, Dorno furnishes ique measurments that reveal extraordiry diurnal and seasonal variations. As ght be anticipated, the maximum daily lue for Ultra Violet intensity is reached at on, during the summer months, and at high itudes.

Many observers are agreed that the limit Ultra Violet wave lengths passing through earth's atmosphere is fixed, owing to high sorption characteristics of ozone found in outer layers of the photosphere, at about 00 Angstrom units; and since usual win w glass filters off all wave lengths shorter an 3022 Angstrom units (6), it seems cern that the property of Solar Ultra Violet ergy in preventing and curing rickets must ascribed to wave lengths included between 22 and 2900 Angstrom units (an exceedgly small portion of the Solar spectrum. d the portion that presents quite small insity value for a brief time only during e summer season, its value in winter being actically nil.)

II.

Ultra Violet energy, produced by the artz mercury vapor arc, extends from 4000 1850 Angstrom units; 1850 being the limit quarts transmission. Luminescent mery vapor furnishes a discontinuous spectrum, the important Ultra Violet bands being (7):

4000A. U.*	3391	2804	2446
3907	3342	2753	2412
3821	3126	2700	2378
3752	3022	2654	2302
3663	2967	2576	2253
3650	2925	2536	2225
3544	2894	2482	

The bands included between the limits of glass transparency for Ultra Violet, and the shortest Solar Ultra Violet wave length, are, therefore:

3022
2967
2925
2894 (possibly).

In order to determine the effectiveness of the bands mentioned as a means to prevent experimental rickets, the radiation issuing from modern Ultra Violet equipment was passed through various special glass filters* and played on experimental and control rats. The glasses selected were as follows:

		Wave length of lines recognized**		
1.	G 86-B	7000	—	2654
2.	G 585	4200	—	2967
3.	G 586A	4600	—	2967
4.	702 E. J.	7000	—	2967
5.	G 38-L	7000	—	3752
6.	G 38-H	7000	—	4600
7.	Ordinary glass..	7000	—	3022

III.

Three dozen rats, ranging from 35 to 55 gram in weight, were distributed into nine groups of four animals each. Groups 1 to 7, inclusive, were exposed to the radiation that passed through the glass filter designated and numbered to correspond with the rat group. Group 8 received the diet that was fed to all of the groups 1 to 7. Group 9 remained as a normal control under ordinary diet.

The special diet selected was that recommended by Powers, et al (1), and consisted of:

Wheat	33.0 parts
Maize	33.0
Gelatin	15.0
Wheat gluten	15.0
Sodium chloride	1.0
Calcium carbonate	7.0

*Angstrom Units.

*Prepared by the Corning Glass Works. Thanks are extended to that company for supplying various glass filters used in this and other studies.

**For complete details of ultra violet and visible transmission of these glasses, see Gibson, Tyndall and McNicholas, Department of Commerce, Technologic Paper 148.

The wire cages were so arranged as to leave only the uppermost opening uncovered, into which the selected ultra violet radiation entered; so that the groups submitted to ultra violet irradiation received no illumination other than that offered by the filtered quartz mercury vapor light. The equipment used was that generally designated Air Cooled (or Biologic) Mercury Vapor Lamp. The light was furnished continuously, without recess. The operating characteristics of the apparatus were:

Volts 70
Distance (from tube to rats)... 12 inches
Total time of irradiation..... 96 hours

For each group of rats, the findings are as follows:

Group I. McCollum diet. 96 hours under filter G86-B, or wave lengths from 7000 to 2654 Angstrom units. Rickets not developed. Desquamative erythema. Tails pigmented.

Group II. McCollum diet. 96 hours under filter G585, or wave lengths from 4200 to 2967 Angstrom units. Rickets not developed. Desquamative erythema. Slight conjunctivitis in albinos. Pigmented tails.

Group III. McCollum diet. 96 hours under filter G586A, or 4600 to 2967 Angstrom units. Some desquamation, slight conjunctivitis, pigment. Rickets not developed.

Group IV. McCollum diet. 96 hours under filter 702 E. J. (pyrex), or 7000 to 2967 Angstrom units. Rickets did not appear. Some desquamation, pigmentation and conjunctivitis.

Group V. McCollum diet. 96 hours under filter G38L, or 7000 to 3752 Angstrom units. Rickets developed promptly. General activity, retained in experimental animals of groups 1, 2, 3 and 4, lacking. No conjunctivitis. Little erythema.

Group VI. McCollum diet. 96 hours under filter G38H, or 7000 to 4600 Angstrom units (some visible blue light). Rickets developed. Characteristics as for group V.

Group VII. McCollum diet. 96 hours under ordinary (crown) glass, radiation from 7000 to 3022 Angstrom units. Rickets developed.

Group VIII. McCollum diet. 96 hours in dark, absent even from ordinary light. Rickets developed.

Group IX. Normal diet. Kept in ordinary laboratory light. No rickets.

From these exposures under various conditions of Ultra Violet filtration, or selective wave-length radiation, it is established that the prevention of rickets in experimental animals subjected to deficient diet and altered Ultra Violet energy, the wave-lengths respo sible for the prevention of the disease are e compassed within the limits of 3022 and 26 Angstrom units. Sunlight can afford a radi tion that extends only to 2900 units; so th the selected radiation of the mercury vap lamp offers advantages that may be summa ized as follows:

1. Constant and unvarying intensity, ten ing to minimize the preventative (and cur tive) time period;

2. Wave lengths extending beyond tho reaching the earth from the sun (2654 inste of only 2900 Angstrom units);

Summary

Data and experiments are presented sho ing; (a) the limits of Ultra Violet wave lengt in sunlight preventing experimental ricke (from 3022 to 2900 Angstrom units).

(b) The loss of ultra violet intensity Solar radiation incident to season, time of da and altitude.

(c) The limits of Ultra Violet wave lengt from the mercury vapor arc in quartz effecti in preventing experimental rickets (from 30 to 2654 Angstrom units).

(d) A method for procuring desired s lected wave-lengths from the quartz mercu vapor arc through the use of especial filters.

References

(1) Powers, G. F., Park, E. A., Shipley, G., McCollum, E. V., and Simmonds, Nin Journal of American Medical Association, Ja 21, 1922, Vol. 78, pp. 159-165. The Preventi of the Development of Rickets in Rats by Su light.

(2) Hess, A. F., Unger, L. J., and Pappe heimer, A. M.: Experimental Rickets in Ra III. The Prevention of Rickets by Exposu to Sunlight., Journal of Biological Chemistr Vol. L, No. 1, January, 1922.

(3) Hess, A. F.: The Prevention and Cu of Rickets by Sunlight, American Journal Public Health, February, 1922.

(4) Hess, A. F., and Unger, L. J.: An I terpretation of the Seasonal Variation of Ric ets, American Journal of Disease of Ch dren, August, 1921, Vol. XXII, pp. 186-192.

(5) Clark, J. H.: The Physiological A tion of Light, Physiological Reviews, Vol. I No. 2, April, 1922.

(6) Buttolph, L. J.: Lab.-Arc, Monochr matic Light, Cooper Hewitt Electric Compan Hoboken, N. J.

(7) Pacini, A. J.: Ultra Violet Radiatio Journal Radiology, September, 1922.

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

A CASE OF HYPERTENSION

MRS. H., age 68, housewife. Always been well until three years ago at which time she complained of what she termed "nervousness." She was easily excited and could sleep but little. Complained off and on of pain in the epigastric region, headache and frequent urination. The attending physician found albumin in the urine, cardiac hypertrophy and high arterial tension. He reported that her systolic pressure varied from 200 to 235 over a long period of time. Her condition would improve for a time under treatment. On January 1, 1922, she was ordered to bed and placed on a protein free diet until February 1, when she was brought to my office in an ambulance.

Her general appearance was anemic, lips purple in color, pupils dilated and appeared very much agitated. Her principal complaint was inability to sleep. Examination showed cardiac hypertrophy, apex beat 1½ inches to left; lungs clear; abdomen negative; reflexes exaggerated.

Urine clear, quality 40 ozs. Reaction acid; S. G. 1010; albumen one-fourth gram; sugar, none; urea diminished; indican trace; crystals normal. A few hyaline casts and no bacteria. Pulse 88 full and regular; blood pressure systolic 204, diastolic 136, energy index 299. Her physician stated that her systolic pressure was but slightly reduced after one month in bed. She was taken from her bed and brought to my office for treatment and returned to her bed. After 10 daily treatments by autocondensation her blood pressure was as follows: Systolic 170, diastolic 124, pulse rate 88, energy index 258. At this time she was in bed only two hours after each treatment. Retired at 8 p. m., and slept well until 3 a. m., after which she was quiet but could sleep no more. After four more treatments given every alternate day her blood pressure was systolic 170, diastolic 124, pulse rate 80. No treatment was given for a period of three weeks when the blood pressure was found to be as follows: Systolic 180, diastolic 124, pulse rate 80. During the month of March she received 13 treatments by autocondensation, after which she had regained her normal color, was sleeping eight hours each night, and driving her own car. Between April 1 and 14 she received 6 treatments when the blood pressure reading was systolic 160, diastolic 112 and pulse rate 80; energy index 217 (almost normal). She discharged her maid and resumed her household duties. Between April 14 and September 14, she received nine treatments. Her blood pressure readings taken once a week showed but little variation during the last five months.

While she is apparently well and enjoying life she has her blood pressure taken once in two weeks. It may be added that no albumin has appeared in the urine since the tenth treatment. No drugs except laxatives were employed.

PHYSIOTHERAPY COURSE

A course of study for the training of technicians in physiotherapy has recently been instituted at Stanford University Hospital, San Francisco. This course is designed to give adequate theoretical and practical knowledge to those persons who want to have efficient training in this branch of medical treatment to be administered under the supervision of the medical profession. The course was instituted to meet the demand for wider knowledge of physiotherapy in its application to rehabilitation and industrial accident work.

ANOTHER VICTIM OF THE ROENTGEN RAYS

Dr. J. Bergonie, professor of clinical medical electricity and biologic physics of the faculty of medicine of Bordeaux, has had to have his right arm amputated. Several years ago two fingers of his right hand were removed on account of radiodermatitis of the hands.

STUFFED CAPSULES

¶ Roentgen irradiation is the method of choice for keloid.

✣ ✣ ✣

¶ Small angiomata may be cured by one treatment with roentgen rays.

✣ ✣ ✣

¶ Do not criticize without definite knowledge. Perhaps, after all, your own ideas need remounting.

✣ ✣ ✣

¶ "Bunk" is a word employed when "in the dome nobody's home."

✣ ✣ ✣

¶ He who does things invites criticism. He who does nothing invites not even attention.

✣ ✣ ✣

¶ It is better to be possessed with an adequate theory than no theory at all.

ONLY A VIOLET!

Only a Violet, plucked long years ago,
And enclosed in a letter to me,
Portraying a love, only a Mother can know,
As fathomless as the waters of the sea.
Only a Violet, dead and dry,
Gathered long years ago,
But reflecting still the azure of the sky,
And the beauty of earth below.
The hands that plucked that flower,
Have grown wrinkled and old,
But their touch retains that magic power,
Of soothing sweetness, and love untold.

—Dr. W. W. Arnold.

Carpings of the Cynic

CHARACTER STUDIES

I.

The heading of this article might as well be, "The Worm Will Turn," or "It's a Long Road That Has No Turn," or "All Things Come to Those Who Wait," or "N'ev'rything."

It is to be a preachment on my creed.

I believe in giving the devil his due. I believe that the square deal for everybody is best. I believe that he who laughs last laughs best, and all that sort of thing.

And for the medical profession, I believe the laborer is worthy of its hire. That when you have earned your fee it should not be denied you, and that when you charitably serve you should joyously give your service.

II.

Well, one day (once upon a time) the writer had his car slightly damaged in one of those often recurring road accidents which just seem to happen and both parties are to blame,—the blame is mutual, or there is no blame. The writer was jesticulating wildly with both hands and preparing to take the names of character witnesses and innocent bystanders, when, cooly, calmly and colloquially the offended party from the other car came up and said, "Well, brother, it seems about mutual. It's all in the game. Sooner or later one must lose. Why worry? It's a good sportsman that can play the game, and take his turn, 'n'ev'rything."

We shook.

But, doctor, when you have attended the sick for many days, and the implied contract calls for so much per, and you have made 'steen visits and the bill is 11ty dollars, and you have sent five duns, and the interest on the money is now about umpty cents and you have to pay your taxes if any and "will you please mail check, pronto?"

—As I say, that seems different!

But the check does not come and you grieve and pine your young life away amid years of waiting while Congress discusses the tariff.

III.

Now the argument in this discussion if any is illustrated by the story of a neighbor woman who owns her own home and red hair and is small 'n'ev'rything and wirey. She can tell any born man how and when and where to get off. She has a husband but he does not live on the job with her "On account of her d— religion," as he puts it.

The neighbor next to her has a Ford garage and was keeping a larger car in it, but it was with difficulty that the entrance and egress could be negotiated if you know what I mean. The car, to make the turn, got its left hind foot repeatedly and abundantly on the adjoining lot of the red haired woman with the null and void husband so that without permission and even asking the act legally and technically speaking was termed trespassing after the fact in the third degree.

So that in due course the red haired woman objected and told the whole kit and bandbox when and where.

In order to make the matter legally nolle pross 'n'ev'rything the R. H. woman had her a special coal shed built right up against the right of way which made it impossible for a vehicle or a Ford to enter said garage. Therefore said neighbor could not rent her garage, aforesaid egress being **noli me tangere** 'n'ev'rything.

Now another war came on and the world forgot our R. H. Woman. But her son who was a stonemason, now living at home with her, was working steady for a mere pittance of ten to fifteen dollars every day so that in due course the next best thing to do was to buy a coupe.

Not having any garage to put it in he now stands it under a tree while a perfectly empty garage ten feet away merely grins and seems to say, "He laughs best who laughs last."

IV.

Now in my early, grossly scientific medical career, given to grieving for one or two patients who failed to appreciate me remuneratively, a fellow practitioner consoled me thus, and said, "Oh, doctor, just don't worry; file the bill away in the back of your beezer and abide your time—there'll come a time."

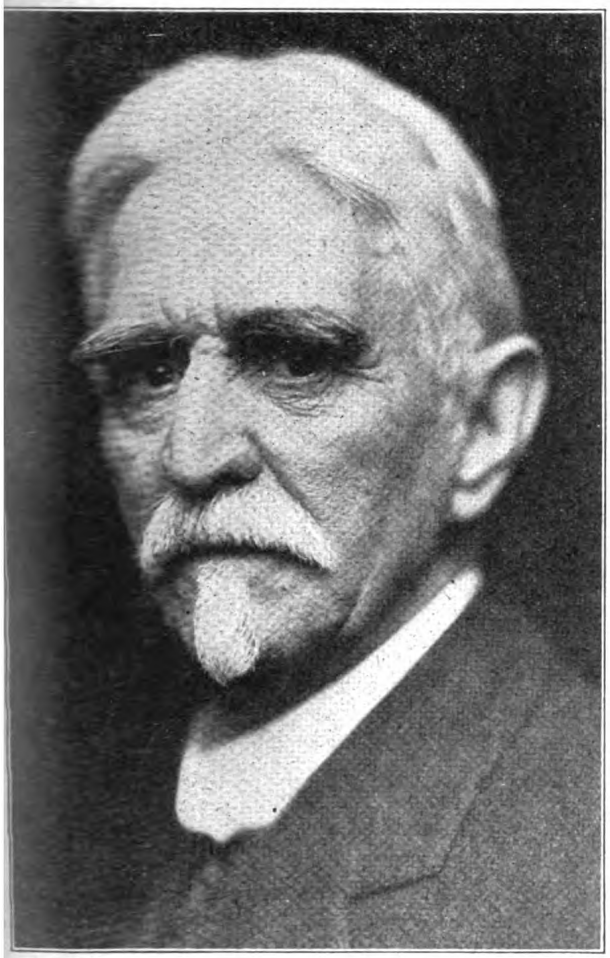
V.

And sure enough, after the movies had been invented, and electric street cars, and telephones perfected if any, and wireless, and the modern woman perfected 'n' ev'rything, said family, for whose bill I had pined,—(having donated one whole year of my medical service to them and received nothing).—My time arrived! For, during said years said family had prospered and said doctor had kept on friendly speaking terms so that in due course the daughter and angel chile went in swimming or something at the wrong time 'n'ev'rything and in due course there was none of course.

And it came to pass that said pen holder had already been introduced as Exhibit "A," and that Exhibit "B" was not in evidence, except as I say as an accessory after the fact.

Then I was hurriedly called in; the dam had broken and the torrent of fever was raging 'n'ev'rything.

Necrological



—Strauss-Peyton photo.

C. LESTER HALL, M. D.
AN APPRECIATION

CRAWFORD LESTER HALL was born in Arrow Rock, Saline County, 1845. Graduating from the Jefferson Medical College, of Philadelphia, in 1867, he began the practice of medicine in Marshall, Mo. In 1890 Dr. Hall moved to Kansas City and for some years was Professor of Gynecology in the University Medical College.

Dr. Hall was a member of the American Medical Association, the Western Surgical and Gynecological Association, Missouri State Medical Society, Medical Society of the Missouri Valley, Jackson County Medical Society and the Kansas City Academy of Medicine. His devotion to the Academy, rarely missing a meeting to the day of his death, surrounded him with a fellowship of love from both old and young members that followed him to his grave with rare and tender memories. His refinement and charm of personality, his deep love for his profession and for the young man in the profession of medicine, endeared him to the Academy membership of young men. At the closing spring meeting of the Academy for the season, a session devoted to reminiscent fellowship talks, quips and jollification stunts, Dr. Hall sat at the table with the writer, Dr. Philip Kanoky and Dr. J. D. Griffith and mingled his cheery laughter with our own, as he had done on twenty-two similar anniversaries; and this was but a few days before May 27th when he received his death stroke while attending the A. M. A. at St. Louis. As he lived he died—with the flag of loyalty to medicine still waving.

Dr. Hall was one of the most revered of the Kansas City physicians, and the esteem and affection in which he was held was shown in the banquet given in his honor at the completion of his fiftieth year of practice. The dinner was officially sponsored by the county and state societies and the American Medical Association, and was attended by two hundred friends.

At the age of seventeen Dr. Hall enlisted in and served through the Civil War.

Dr. Hall served as Vice-President of the A. M. A., as President of the Missouri State Medical Society, Jackson County Medical Society and the Kansas City Academy of Medicine.

Dr. Hall was of a family of physicians ,a son of a physician and a brother of two physicians. The Halls were a pioneer family, early arrivals from Kentucky, related by marriage and kinship with others from Kentucky and Virginia who gave grace, scholarship and a vigorous leadership to the early state. The Marmadukes, the Sappingtons and the Halls are names that stand out conspicuously in the history of Missouri.

He was married in 1869 to Katherine Sappington. They celebrated their golden wedding anniversary three years ago.

He is survived by his widow, three brothers, Dr. John R. Hall, Dr. Thomas B. Hall and M. W. Hall, all of Marshall; three sisters, Mrs. Dorsey W. Shackelford, Mrs. W. W. Trigg and Mrs. Fred B. Glover; two sons, Dr. D. Walton Hall and C. Lester Hall, Jr., and two daughters, Mrs. Leon Smith and Mrs. Kenneth McDickey, and the loving memories of the entire fellowship of the Kansas City Academy of Medicine.

To his loved ones the Medical Herald extends these tokens of sympathy for all time.

S. G. B.

ANXIOUS INQUIRY

For Einstein's theory I do not care,
The fourth dimension does not fret my soul,
My one anxiety relates to where
I'm going to obtain next winter's coal.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald

and Electro-Therapist

Incorporating the

Kansas City Medical Index-Lancet

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All communications should be addressed to the Managing Editor.

Vol. LXI OCTOBER, 1922 No. 10

The Editors' Forum

Blood Pressure and Weight Reduction.

THE "average doctor" has not had a great deal of good luck nor marked success in treating either high blood pressure or obesity. This writer has undertaken them both with a great deal of enthusiasm and came back with a great deal of experience. He has heard a scientific paper read at the St. Louis meeting of the A. M. A. exploiting the Thyroid treatment for successful fat reduction, but in many seeming well chosen cases of his own, thyroid has never proved to have any marked influence.

I knew a doctor who made obesity treatment a specialty but he finally had to go to work practicing medicine. This writer's opinion is that the most successful treatment for obesity is to fracture the subjects two humeri (which would be more than humerus).

As for hypertension the same "positive and trustworthy results" also are obtainable by any medicine,—in fact, for either, if you depend on drugs alone, doctor and patient are, in the prevailing percentages, to be doomed to disappointment.

The best points in the treatment of these two conditions at present may be stated as follows:

1. Weight reduction by diet causes improvement in several important symptoms in obesity.

2. One of the most uniformly noticed is the reduction of blood pressure.

in incurable disease, this seems to be a reliable therapeutic measure.

4. Cases amenable to this method of treatment maintain the low blood pressure if the diet is normalized at the conclusion of the reduction.

5. Shortness of breath, palpitation, edema of legs, and albuminuria seem dependent upon increased blood pressure and are relieved when blood pressure falls.

6. A drop of 15 to 20 points systolic may be

3. Excepting Bright's in focal infection and expected in the first week, up to 50 during the course may be expected.

7. High blood pressure headache is very successfully releived by this treatment.—Condensed from R. H. Rose, N. Y., Med. Jr., June 21, 1922.

Note.—Rest in bed frequently through the day and long hours at night is essential in some high blood pressure cases.

The co-operation of the patient, in enforced diet, in obesity, is essential in most cases, whatever the treatment.

In obesity, unless the patient will co-operate in enforcing the diet, failure to loose weight is certain in most any treatment.

✣ ✣ ✣

"So they have isolated the typhus germ," exclaims the St. Joseph News-Press. "That's our idea of splendid isolation."

Cheero, Brother, it is splendid; but isolation does not mean eradication. Now there's the Christian Science germ!—H. N. J.

The "Missouri Valley" at St. Joseph

SEPTEMBER 22nd the Missouri Valley Medical Society closed another of its delightful annual meetings, under the presidency of Dr. Paul E. Gardner, of New Hampton, Iowa. Sessions were held at the Robidoux Hotel in the Crystal Room. The meeting followed clinic week and the members were in a good mood to appreciate the scientific papers. The program was the usual good one, which included men who had a real message—E. P. Sloan of Bloomington, Ill., on Goiter; N. M. Keith from the Mayo clinic on Hypertension in Cardio-Vascular Disease; Frank Smithies of Chicago, on Modern Meaning of Biliousness. These men presented real advances in their respective fields, and members after hearing them felt the time had been most profitably spent. The program throughout was a good one, representing new work in all fields of medicine. Friday morning was devoted to a symposium on Cancer. The broad discussion straightened out some old kinks and suggested new lines of thought and procedure.

The "smoker" was keenly enjoyed by the members, and the entertainment for the ladies was delightful and varied in its daily aspects. The next annual meeting will be held in Omaha. Officers were elected as follows: President, Dr. F. H. Spencer, St. Joseph; first vice-president, Dr. W. H. Stotler, Shenandoah; second vice-president, Dr. Palmer Findley, Omaha; secretary, Dr. Charles Wood Fassett, Kansas City; treasurer, Dr. O. C. Gebhart, St. Joseph.

Missouri Valley Clinics

THE Buchanan County men did themselves "proud" during the two days' clinic which preceded the Missouri Valley meet. It would be difficult to find any where a greater array of surgical and medical material or a better presentation of the cases. The operating rooms of all the hospitals, Ensworth, Noyes and St. Joseph's, were thronged with visiting doctors observing the greatest fund of pathologic studies ever concentrated in St. Joseph. They came from private practice, charity practice and various institutions in Buchanan County. All phases of disease, medical and surgical were presented, X-ray in its various aspects and laboratory procedures, to such a degree as to entitle St. Joseph to be classed a real medical center.

Noon lunch was served at St. Joseph's hospitals for those who did not return to down town districts. Evening entertainment was supplied by the society for visiting doctors. The local profession was so pleased at the success of the clinic work, they have decided to make it an annual or semi-annual affair. The visiting doctors were pleased and declared their trip most profitable, promising to come again and bring some one, so that the success of the next clinic week seems already assured.

ECHOES

¶ Dr. Frank Smithies declares the hereditary factor in cancer must be considered. A member of his research force has inbred cancer in mice by cross breeding and by the same method of judicious crossbreeding has eradicated it. This has been done so frequently and easily as to establish the fact that the parent does bequeath to the offspring a certain cancer factor.

✣ ✣ ✣

¶ Regarding liver function, Smithies declares ptomaine poisoning may be interrupted to mean the liver has been unable to act as a barrier between food decomposition products, or the end products of digestion and the circulation.

¶ Dr. E. P. Sloan of Bloomington, Ill., in h goiter operations delivers the thyroid by ve sion as in obstetrics. It saves time, shock ar further mutilation.

✣ ✣ ✣

¶ S. Grover Burnett urges the necessity getting away from the idea of reflexes as tl causative factor in spasms in children. The is lack of stability in the brain of the child, biologic inefficiency, a chemic slip in gan lionic cortical cells, a tangential weak link; hypersensitized neuronic overload, therefor an imperfect balance between the intake impressions and the outflow of motor impulse

✣ ✣ ✣

¶ E. H. Skinner, of Kansas City—"Results Cancer treatment depends more upon the ab ity of the physician than upon the mere po session of apparatus or therapeutic agents, ray, radium," etc.

✣ ✣ ✣

¶ Donald Macrae, Council Bluffs, urg against the use of radium in early cases cancer—the scattered metastases which follo are more to be dreaded than the original lesio The difference between malignant and beni neoplasms is best made by frozen section freshly obtained. If malignant do a sweepir operation.

✣ ✣ ✣

¶ Findley Palmer, Omaha—"For early cas of uterine cancer, use the knife; for late one call the undertaker. Neither x-ray nor radiu have any influence. Persistent leucorhea a chronic endometritis usually means develo ing malignancy.

✣ ✣ ✣

¶ Wood, Kansas City, emphasizes the fa that many vitamines are destroyed by co storage or by long boiling. Cranks who adv cate the use of raw foods may build better tha they know.

✣ ✣ ✣

¶ Smithies has found among these cases call "bilious," 27 per cent have no Hcl; 28 per ce have interstitial pancreatitis; 35 per cent sor pancreatic deficiency disturbance.

✣ ✣ ✣

¶ Keith, of the Mayo Clinic, invites men study the capillary circulation in cases of H pertension in cardiac vascular disease, f there the diagnosis and prognosis may be e denced.

✣ ✣ ✣

¶ Dowd maintains that the metabolic proce of the nervous system may be measured by t amount of phosphorus compounds eliminat in the urine in the form of alkaline phosphat —J.. M. B.

THE CONVENTION OF THE "SOUTHWEST"
AT HOT SPRINGS NATIONAL PARK

By ALTA SMITH

Director of Publicity, Business Men's League

PACK your grips and come to Hot Springs! A glad hand and a royal welcome awaits all members of the Medical Association of the Southwest and the Southwestern Urogical Society, who are to meet here in joint ssion Octobre 16-17-18. The Convention ureau of the Business Men's League is join- g hands with the local physicians in their ans to make the 1922 meeting of the Medi- l Societies the best on record.

The dates are just right. The cool ountain air of the Ozarks, which ows through the valley even dur- g the warmest season, at this time at its best—bracing and invigo- ting.

The railroad strikes are over and osperity is in the atmosphere. ome to the convention. The pro- am is fine. You will be glad you me. In addition to the good you ll derive, personally, from the nics, lectures, general discussions d contact with other physicians, ere will be plenty of recreation. he social side of the program has en well taken care of and there ll be something doing all the time.

* * *

F you prefer you can spend your spare moments in between sessions enjoying a bath in the rld-famed hot waters, a horse- ck canter, a motor spin over gov- ment built mountain driveways, ound of golf on splendid courses, swim or other sports too numer- s to mention.

* * *

HOT SPRINGS is also famed for its cold waters, and water drinking pavilions, like its ks, are numerous.

A great amusement feature here the Ostrich Farm, one of the fin- in America, and the Alligator m, the largest of its kind in the ntry. And one don't really leave e until he has had a bird's-eye w of the city nestled, as it is, in heart of the mountains and gotten the magnificent vista of the valleys spreading beyond, from the great steel observation tower which tops Hot Springs Mountain. From this point one can also see famous Oaklawn Race Track, Hell's Half-Acre, Sugar Loaf Mountain and the water works pumping station and lovely chain of lakes.

Yes, come to Hot Springs! The "key" to the city will be turned over to the medical men and their friends. There is lots more to tell



HEART OF HOT SPRI

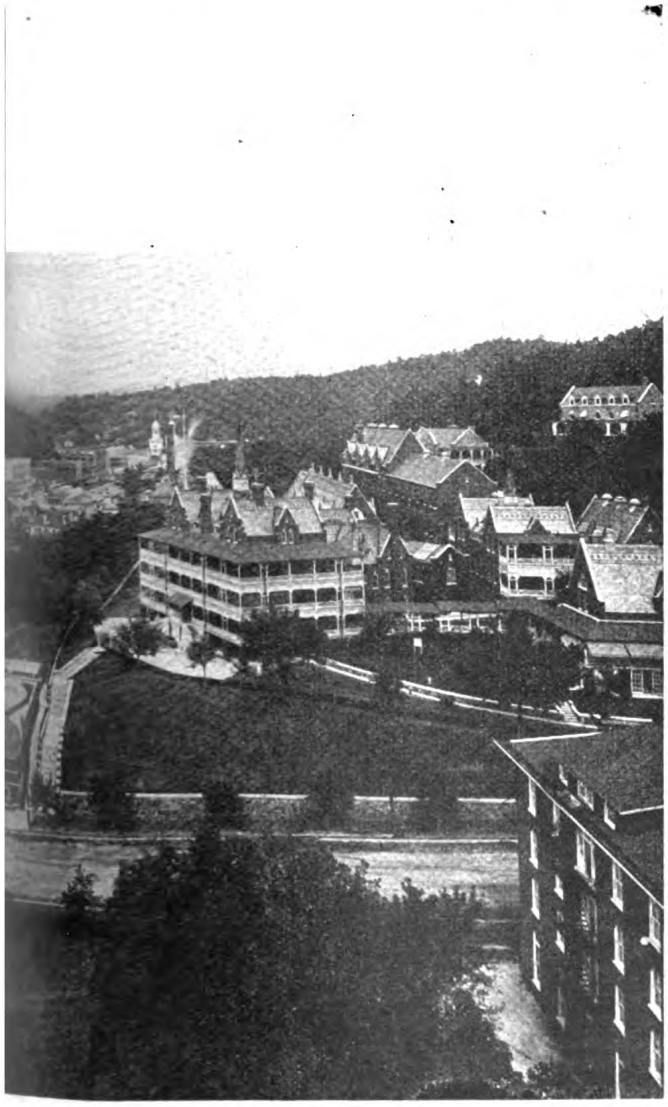
U. S. Army and Navy Hospital on the Right and Central Av

you about, but you would rather see for yourself. Come on; we want you. Welcome!

P. S.—LET'S GO!—Editor.

EXHIBITS AT THE MEDICAL ASSOCIATION OF THE SOUTHWEST

Victor X-Ray Corporation.
H. G. Fischer & Company.
Horlick's Malted Milk Company.
C. V. Mosby Book Company.
Radium Chemical Company.
Twentieth Century Chemical Company.
Acme X-Ray Company.
Denver Chemical Company.
Hettinger Bros. Manufacturing Company.



NATIONAL PARK
Faced by Ten Million-Dollar Bath House on the Left

"AS WELL AS COULD BE EXPECTED"

Old Uncle John will ne'er complain,
All things just seem to suit him;
He likes the wind, he likes the rain—
He'd like it if you'd shoot him.

He has Neuralgia in his head;
His joints have Rheumatism;
His Asthma keeps him up in bed;
His heart is out of rhythm—

It wabbles, thumps and stops, at times;
His liver is hydatid.
He cannot hear the church bell's chimes
Nor see his whiskers, matted.

But ask him how he feels some day;
"Your heart? your cough? your tetter?"
"Outside of that," he'll blythely say,
"I'm feeling fine—**I'm** better!"

—H. N. J.

MY TASK

To
Attend the Sick
And Cheer
Discouraged, Dismal Souls.
To
Put the Pep
Again
In Pale and Pulseless Folk,
Though it Drains me Dry as Pulp
And Leaves me Limp.
I Smile
And Try to Do My Best—
This
Is My Task.

Then When the End is Near
For Them,
And
The Reaper Comes,
And I Have Lost at Last,
Discouraged, Disheartened,
But Undaunted
I Sit Doggedly There
And Pray,
Unconquered.
The Mourners Counted on Me,
And Watch,
And Know I Failed them Not.—
This
Is My Task.

To
Keep My Heart Fit;
To
Live My Life
And
Keep Faith With Myself,—
This
Is My Task.

Then When the End Shall Come
For Me,
And I Have Lived
My Life,
That I Shall Meet the Great Physician
And Hear Him Say
"Well Done."—
This
Is My Task.

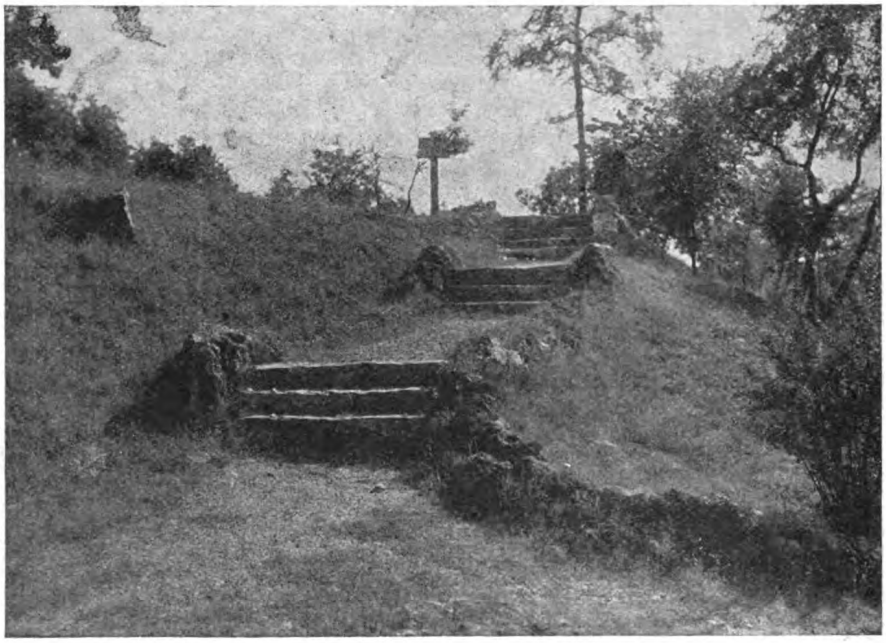
—H. N. J.

Society Scintillations

HOT SPRINGS MEETING, MEDICAL SOCIETY OF THE SOUTHWEST

Medical men are looking forward with pleasant anticipation to the approaching meeting of the Southwest, which will be held in Hot Springs, October 16, 17 and 18, under the presidency of Dr. St. Cloud Cooper of Fort Smith, Ark. The acting secretary, Dr. William H. Bailey, advises us that the program is nearly completed, and he is confident that it is the best program the association has ever had. As far as the social entertainment is concerned, it is only necessary to mention the fact that Dr. W. Turner Wootton is the general chairman. "Nuff Said."

The famous Eastman Hotel has been opened for the occasion, and will house all the sections, exhibits, and entertainment, all under one roof.



A BEAUTY SPOT IN HOT SPRINGS

The clinical side of medicine and surgery will be made a prominent feature at this meeting, and we are confident that no one who attends this meeting will be disappointed. The profession of Hot Springs, as well as its citizens, extend a cordial southern welcome to every medical man to come and enjoy their hospitality and bathe in the best water in the world. The Southwestern Urological Association will meet in conjunction. The program will be found in this issue of the Herald.

Executive Meeting

Special Called meeting of Executive Committee, Monday afternoon, October 15, Eastman Hotel.

Morning Clinics

A big clinic has been arranged for each morning to be held in the Eastman Hotel before the General Sessions of all the sections.

Monday morning, Cardiac and Aortic Deviations, conducted by Dr. George Dock of St. Louis, Mo. This is to be illustrated by Fluoroscopic demonstrations of patients and X-Ray plates of cases.

Tuesday morning, Neurosyphilis, demonstrating the various clinical types, Lumbar Puncture, Spinal Drainage, Swift-Ellis method of Treatment with its modifications, etc. Conducted by—to be selected later.

Wednesday morning. Focal Infections with Special Reference to Arthritis. Conducted by Dr. M. L. Graves, Galveston, Texas. Presenting various types, outlining medical and surgical relief and prognosis.

These Clinics are the keynote of the Convention and should in themselves be worth the time and expense of the trip. They have been arranged especially for the man in General Practice. No effort will be spared to make them as complete in every detail as possible.

Afternoon Section Meetings

Scientific Section Programs; Monday, Tuesday and Wednesday.

Evening Meetings

Monday—Dr. H. A. Cotton's address.

Tuesday—Reception and ball (for everybody).

Our Guest of Honor

Dr. Henry A. Cotton, Medical Director of New Jersey State Hospital, Trenton, N. J., received his M. D. degree from the University of Maryland, in 1899, and also has an honorary degree from that institution. Besides being Director of the New State Hospital at Trenton he is Acting Director of the Department of Medicine and Psychiatry of the State Board of Control, Director of the Psychiatric Clinic for Correctional Institution, Lecturer in Psycho-pathology at Princeton University, etc., etc. He has been Director of this State Hospital for fifteen years. For the last six years he has been working intensively on the problem of "The Relation of Chronic Infection to Mental Disorders." The Institution has successfully treated over 1400 cases in the last four years by removing chronic infection found in the teeth, tonsils, gastro-intestinal and genito-urinary tracts. The methods used were at first received with much skepticism, es-

ially by State Institutions, but are now being pted in many of them.
r. Cotton has arranged to give a moving picture ure on his work Monday evening, the 16th.

Officers for 1922

resident, Dr. St. Cloud Cooper, Fort Smith, Ark.; retary-Treasurer (Resigned), Dr. F. H. Clark, rson Springs, Ky.; Acting Secretary-Treasurer, Wm. H. Bailey, 115 W. 21st St., Oklahoma City, a.; Vice-Presidents, for Missouri, Dr. G. Wilse inson, Kansas City, Mo.; for Kansas, Dr. A. O'- mell, Ellsworth, Kan.; for Texas, Dr. T. C. Ter- Fort Worth, Tex.; for Oklahoma, Dr. C. R. Ray, ahoma City, Okla. Executive Committee—Dr. C. Rosser, Dallas, Tex.; Dr. Jabez N. Jackson, Kan- City, Mo.; Dr. M. L. Perry, Topeka, Kan.; Dr. L. Blesh, Oklahoma City, Okla.; Dr. W. T. Woot- Hot Springs, Ark.; Dr. S. S. Glasscock, Kansas , Kan.; Dr. J. D. Griffith, Kansas City, Mo.; Dr. Becton, Greenville, Tex.; Dr. E. S. Lain, Okla- a City, Okla.; Dr. M. M. Smith, Dallas, Tex.; Dr. F. Day, Arkansas City, Kan.; Dr. E. H. Skinner, sas City, Mo.

Sections

urgical Section—Dr. McLain Rogers, Chairman, on, Okla.; Dr. W. P. Callahan, Secretary, Wich- an.
edical Section—Dr. Wm. H. Bailey, Chairman, ahoma City, Okla.; Dr. Thor Jager, Vice-Chair- man, Wichita, Kan.; Dr. C. S. Holt, Secretary, Fort Smith, Ark.

Eye, Ear, Nose and Throat Section—Dr. H. Boulton, Chairman, Fort Smith, Ark.; Dr. C. T. Ralls, Vice-Chairman, Winfield, Kan.; Dr. J. H. Buckley, Secretary, Fort Smith ,Ark.

Genito-Urinary Section—Dr. E. A. Purdum, Chairman, Hot Springs, Ark.; Dr. Edward White, Secretary, Dallas, Tex.

Gynecological and Obstetrical Section—Dr. O. H. Hall, Chairman, Warrensburg, Mo.; Dr. J. D. Clark, Secretary, Wichita, Kan.

HOT SPRINGS COMMITTEE

W. T. Wootton..Chm. Committee on Arrangements
J. T. Jelks.....Vice-Chairman
L. R. Ellis.....Hotels
C. T. Drennen.....Reception
S. D. Weil.....Publicity
J. H. Chesnutt.....Badges and Finance
O. H. King.....Meeting Places
W. V. Laws.....Scientific Exhibits
Z. N. Short.....Information
J. M. Proctor.....Transportation
L. Thompson.....Golf and Alumni Dinners
S. B. Steel.....Commercial Exhibits
A. H. Tribble.....Entertainment
W. H. Deaderick.....General Secretary
Mrs. G. E. Tarkington.....Ladies' Entertainment



HOTEL EASTMAN, HEADQUARTERS

PROGRAMME

ond annual meeting of the Southwestern Branch American Urological Association, Hot Springs, September 17, 1922.
a. m.—Executive session; election of officers.
0 a. m.—Scientific Program.
1. Peri Nephritic Abscess as a Urological Prob- —Dr. Nelse Ockerblad, Kansas City, Mo.
2. Report of a Case of Hemorrhage from the Base of the Bladder with Treatment and Results —Dr. A. C. Stokes, Omaha, Neb.
3. Diagnosis and Management of Urinary Calculi—Dr. Neal Moore, St. Louis, Mo.
4. Diverticula of the Bladder—Dr. Lee Hoffman, Kansas City, Mo.
12. Noon. Urologist's Luncheon.
1:30 p. m.
5. The Urological Standard (President's Address)—Dr. Ernest G. Mark, Kansas City, Mo.
6. Internal Urinary Antisepsis—Dr. Edwin Davis, Omaha, Neb.
7. Observations on Urological Work in Europe —Dr. Julius Frischer.
8. Subject to be announced—Dr. John Caulk, St. Louis, Mo.
9. The Interpretation of Pyelograms—Dr. Clarence Capell, Kansas City, Mo.
10. Subject to be announced—Dr. F. M. McCallum, Kansas City, Mo.

The officers of this association are as follows: Dr. Ernest G. Mark, President, Kansas City, Mo.; Dr. Oliver Lyons, Vice-President, Denver, Colo.. Dr. Clinton K. Smith, Secretary-Treasurer, Kansas City, Missouri.

Current Comment

The Woodson Dinner

THE annual chicken dinner given to the doctors of the Buchanan County Medical Society, at the Woodson Sanitarium was enjoyed by a full attendance of the society and some visiting physicians, September 6. The usual good fellowship was dominant, and a spirit of thanksgiving pervaded the occasion because of Dr. Woodson's return to health. Dr. Fred Ladd, president, presided as toastmaster until he had unloaded his annual speech, then the direction of affairs was turned over to the host, Dr. C. R. Woodson. The doctor gave one of his delightful philosophic talks, then called upon others for after dinner speeches. Dr. Jacob Geiger became reminiscent concerning his half century of practice, and he is still doing his part. Dr. John I. Byrne recalled being treated by the host during his babyhood. Drs. Kessler, Elam, Fassett, and A. L. Gray added to the flow of wit and wisdom which characterizes the Woodson dinners. Coffee and cigars as a finale erected a huge pyramid of good will, good fellowship and good wishes to the host and his guests sufficient to maintain the statu quo for another mile stone.—J. M. B.

NEW HOOKWORM TREATMENT SUCCESSFUL IN RECENT TESTS

Evidence that is gradually being accumulated by medical men in various parts of the world provides a good basis for the belief that carbon tetrachloride, a cheap and common chemical, is a cure for hookworm in human beings. Recent reports from the Fiji Islands and Ceylon covering thousands of cases show practically 100 per cent of successes.

The discovery of the efficacy of the drug in removing these parasites was made by Dr. Maurice C. Hall of the United States Department of Agriculture, who tested it on dogs and even tried out its effects on himself. His results immediately stimulated medical men in many countries to start investigations, and favorable reports are now being received by the department.

Quinidin Sulphate, so far, seems to be the best remedy for Auricular Fibrillation. It is given by mouth in cautious dosage, and may be repeated in a day or so. It may cause embolism.

ANNUAL DINNER

The annual dinner of the Kansas City Obstetrical and Gynecological Society took place at the Hotel Lucerne, Kansas City, September 28. Dr. George Clark Mosher, president of the society, was host. The dinner was in honor of Dr. Roland E. Skeel of Los Angeles president of the American Association of Obstetricians and Gynecologists. Other out-of-town guests were: Dr. John J. Byrne and Dr. Caryl Potter of St. Joseph, Dr. Lynn B. Schofield and Dr. O. B. Hall of Warrensburg, Dr. Lester Leverich and Dr. E. A. Reeves of Kansas City, Kan. Following the dinner Dr. Skeel made an interesting address at the General Hospital.

MALARIA SURVEY IN MISSOURI

From August to December, 1911, Doctor Mark F. Boyd of the Rockefeller Foundation's field staff, in service with the Missouri State Board of Health, conducted a malaria survey in the southeastern corner of that state. Although the territory studied lies on the northern border of the recognized malaria zone of the United States, Doctor Boyd found that malaria is responsible for nearly 60 per cent of all illness. "Of the people having attacks of malaria about 36 per cent consult a physician about 16 per cent have no treatment; and the remainder dose themselves with chill tonic and quinine. None were found who had received what is regarded as the minimal dosage of quinine necessary to make a cure reasonably certain."

"The people living in open, unscreened houses have four times as much malaria as those living in well-built and well-screened dwellings. Difference in degree of protection against mosquitoes seems to be mainly responsible for the fact that the highest infection rate was found among farm-hands, 14.6 per cent; a lower rate among tenants, 10.2 per cent; and the lowest among proprietors, 7.3 per cent.

"The outstanding fact is that malaria in this region is on the decline; and that the principal cause of the decline is systematic agricultural drainage. Dr. Boyd's conclusion is that in this region anopheline control as a health measure is not economically feasible; and that the key to the control of the residual malaria lies in improving housing conditions to provide better protection against mosquitoes and educating the doctors and the people in proper standards of malaria treatment and the importance of effecting a cure."

¶ A prolonged hospital stay for diabetes has not in my experience been good for diabetic patients.—E. P. Joslin.

NEVER LIVE BACK OF TODAY

Our life, at best, is soon ended—
A day of pleasure and pain;
At morn, we bask in the sunshine,
At eve' we chill in the rain.
Don't crush your heart with repining;
To work, add plenty of play;
And those will find life the sweeter,
Who never live back of today.

The fragrant flower just blooming,
To some, possesses no charm;
They treasure one scentless and wither'd,
And hope, forever disarm:
They live in the past with shadows—
Ever seem groping their way;
Ah, those know most of soul sunlight,
Who never live back of today.

Live for today, and tomorrow;
Yesterday, bury for aye;
Let your heart hold enough laughter
To drown forever your sigh;
Crowd years of life into moments;
Sip its red wine on your way;
And those the most bliss will gather,
Who never live back of today.

—Marshall Kenzie Sherwood.

Uterine Cancer—Appropriate radium therapy in recurrent and inoperable carcinoma in the opinion of Rex D. Duncan, Los Angeles (Journal A. M. A., Aug. 20, 1921), surpasses any known therapeutic agent. Pain, hemorrhage and orodous discharges are relieved, and there frequently occurs prompt improvement in the general condition of the patient. Life is prolonged, and there results a comparatively high percentage of clinical cures. Radium therapy when employed by one with adequate facilities, skill and experience is the treatment of choice in early, or so-called operable, carcinoma of the cervix. It avoids operation with the attendant suffering, invalidism, complications and high immediate mortality. Symptoms are promptly relieved and there results a higher percentage of cures than from surgery or any other method of treatment. The efficacy of radium therapy depends on an adequate quantity of radium or radium emanation and appropriate facilities, together with sufficient knowledge and experience for its proper application. Proper dosage and technic are of the utmost importance.

The use of artificial pneumothorax in lung abscess, hematothorax, bronchiestasis, and in advanced pulmonary tuberculosis—Dr. Logan Clendening of Kansas City, has rejuvenated an ancient procedure, which had long since fallen into the discard, with very brilliant results.

Artificial pneumothorax, the production of a collapse of one entire lung, by the introduction of gas into the pleural cavity was first used by Forlanini in 1882. It had been suggested by Carson, an English physiologist, early in the 19th century, and as a matter of fact even before that. Baglivi recorded the fact that two patients with pulmonary tuberculosis had been improved by pneumothorax produced by gunshot wounds.

In 1898 Murphy advocated its use and his description of the method was followed by a furore. It fell, however, into disrepute and it was not until ten years later that it was repopularized, partly by the introduction of suitable apparatus and partly by the splendid results reported for it in advanced pulmonary tuberculosis.

For sub-acute and chronic pulmonary abscess it has been used by one observer eighteen times with fifteen recoveries.

For its use in pulmonary tuberculosis three conditions must be present:

First, it must be used on an advanced case. "Let me impress upon you this fact. It is that which at once makes the success of this measure so miraculous and its use so inevitable. The patients who are suitable for this treatment are only those who have the prospect of a fatal issue. Anything that we can do for them is a net gain."

Second, the disease must be confined to one side of the chest.

Third, it must not be done in the presence of pleural adhesions. Dr. Clendening in association with Dr. Kuhn of Kansas City has been using this procedure for the past ten years with very satisfactory results.

Nine Months' Connivance

Given a pregnant wife, a luetic husband and a secretive doctor, to preserve the sanctity of the home and circumvent diseased posterity, is quite some job. The lying and false secrecy may be administered as follows, according to G. Sauphar, Medicine, Paris: "Intense Anemia," requires intravenous treatment. "The yellow tint of the neoarsphenamine" is due to the addition of Caffein. "The sluggish liver" requires calomel. "Necessity for sparing the stomach" and giving by rectum. A simple prescription may be given the patient and the correct prescription handed to another member of the family.

—"Oh, what a tangled web we weave when first we practice to deceive."

¶ Is gliosis a cause or an effect of the Convulsions of Epilepsy?

¶ The result of a combination of the Art of Medicine and the Science of Medicine is the skilled technician.

¶ Live B. bulgaricus do not decrease the number of B. coli present in the intestines of man or animals.

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

An Index of Treatment by Various Writers.—Edited by Robert Hutchison, M. D., F. R. C. P. Physician of the London Hospital. And James Sherren, C. B. E., F. R. C. P., Surgeon of London Hospital. Eighth edition revised and enlarged. William Wood & Company. Price, $12.00.

There is a charm about that word "treatment" to the doctor which should make a volume upon the subject sell, in spite of the fact that treatment in the absence of diagnosis is futile. In the present case the latter shortcoming does not obtain since sufficient space is given to each topic to suggest the reason for the treatment outlined. The work is an English one—hence of an older civilization than ours, with all its accumulated observation and experience, a factor of much value. The work has been revised by an American physician of sufficient note to overcome any objection to locality. In the revision, American standards of dosage are used and a home touch given which makes the volume an extremely attractive one for the American profession. The scope of the work is ideally adapted to the busy doctor's needs. It includes all subjects he may be called upon to meet in a day's work; it reminds one of methods of meeting exigencies which may have been known yet overlooked. The happy possessor may turn to any given subject, as with an encyclopedia, and find in a nutshell the standard method of treatment. Not a mere suggestion, however, but a clear, clean-cut, well-described method of procedure. The list of authors include the flower of the British medical men, men of talent, experience and reputation. This is the eighth edition. It indicates in itself the value of the work to the profession, and an appreciation of the men who labored to make it.—J. M. B.

The Place of Version in Obstetrics. By Irving W. Potter, M.D., F. A. C. S. Pages, 138, with numerous illustrations. C. V. Mosby Company, St. Louis. 1922. Price, $5.00.

The late Dr. E. Gustav Zinke, for years secretary of the American Association of Obstetricians and Gynecologists, characterized the Potter Method of Version as the one outstanding epoch in obstetrics in the last twenty-five years. Certainly no innovation has caused so much discussion both pro and con and to Dr. Potter must be accorded the verdict that his results are most remarkable. The preface to the book gives the record of 938 cases of version with a fetal mortality of 2 3 per cent and no maternal mortality. Dr. Pottet's enormous practice, running well over 1,000 deliveries annually for a number of years, now totaling over 14,000 cases, has given him a great facility and to be able to complete the average delivery within an hour by eliminating the second stage of labor is an achievement.

The new technique which Dr. Potter has evolved, (1) the ironing out of the perineum and (2) the delivery of the anterior arm before the one over the perineum are points to which he calls particular attention. Added to these he also describes (3) the Walcher position, (4) bringing down both feet at once; (5) avoidance of supra pubic pressure before delivery of the arms, and (6) the delay following the appearance of the foetus at the mouth of the vulva are the striking suggestions.

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It is a pleasure to announce to our readers, many of whom used "R. & G." with such good results before the war, that this excellent water may now be obtained in Kansas City. The Austin Mineral Water Co., has established a distribution headquarters at 1524 Grand Avenue, Kansas City, under the name of the R. & G. Sales Agency. To those physicians who are acquainted with "R. & G." we need add no encomium of praise; to those who have not given this water a trial, we would simply say, "Read the analysis," and compare it with the analysis of any known Mineral Water in the world. The agency will gladly furnish any physician with full information, and reports from those who have prescribed R. & G. in their practice. Write or call Harrison 3156. (See analysis on another page of this issue).

OLD AND NEW

The physician of long ago would feel decidedly handicapped in case he could come back and resume practice at the present time. He would find it necessary to acquaint himself with a considerable number of new medical agents. He would have to learn new technique; he would be shocked, perhaps, at the skepticism expressed by many present day doctors regarding the actual virtue of many druge. But it may be safely assumed that certain combinations of simple effective remedies would remain in the old-fangled doctor's mind, and be employed by him for the benefit of his patients. Micajah Medicated Wafers are the outcome and result of the experience gained by an old-fangled, practical, hard-headed country doctor. The latter did not have at his disposal the facilities of the modern pharmacy. He knew only a small number of drugs, but he knew them well. He was experienced in making combinations the effect of which he was able to study at first hand. Consequently, when constantly confronted with the necessity of using, on mucous membrane especially, an astringent, styptic, mildly stimulating combination of drugs, he evolved a formula which eventually was perfected and gave most satisfactory results, not only in his own practice, but in that of other doctors to whom he recommended it. The satisfactory action and effects of this combination became known to such an extent that suggestions arose that it should be placed at the disposal of the Medical Profession generally. Accordingly the manufacture of this old formula was undertaken by Micajah & Company, with the result that there has been a steadily increasing demand for Micajah Medicated Wafers. It is unnecessary to take anything for granted regarding this preparation. A post card addressed to the makers, Micajah & Company, Warren, Pa., will promptly bring to any doctor a sufficient sample of the Wafers to permit of clinical test, together with literature, case reports, etc., which will repay the reading.

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In extreme emaciation, which is a characteristic symptom of conditions commonly known as

Malnutrition, Marasmus or Atrophy

it is difficult to give fat in sufficient amounts to satisfy the nutritive needs; therefore, it is necessary to meet this emergency by substituting some other energy-giving food element. Carbohydrates in the form of maltose and dextrins in the proportion that is found in

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are especially adapted to the requirements, for such carbohydrates are readily assimilated and at once furnish heat and energy so greatly needed by these poorly nourished infants.

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ARE WE HONEST?

The question was asked, a short time ago, at a medical meeting, "Are we honest to ourselves and to our patients?" Which means to say that the Medical Profession has been more or less justly criticized for its tendency, in the attempt to be conservative,—to lean so far backward as to overlook many means, more or less practical, for the relief of patients. In his attempt to be conservative, the doctor becomes skeptical, doubting the truth of statements that he does not take time to analyze, he denied off hand the possibility that this or that product offered him can or does produce the effects claimed for it. He doubts, and doubting, condemns or ignores. It is, of course, well to be conservatively scientific. It is, on the other hand, unfortunate for the patients, at least, for the doctor to become ultra-scientific. True it is, he may lose faith in certain drugs, but that is no reason why he should become a therapeutic nihilist and profess disbelief in all drugs. Take Dionol for instance. This product is drugless. To describe how and why Dionol acts, one must delve deeper into the study of physiological and pathological electricity than the average doctor finds time or inclination to do. The phenomena attending what we understand as local inflamation are well recognized, but, the underlying cause that produces the classic pain, heat, redness and swelling has only recently been satisfactorily explained. It cannot be denied that a great part of our use of drugs for medical agents is empirical. The successful doctor is not inclined to split hairs over the possible "this or that" of drug action. He wants results. Consequently, if he belongs to the successful element of the Profession, he is inclined to use that which brings him results even though he cannot always explain the now or why of its action. In other words, he exemplifies the old saying that "The proof of the pudding is the eating thereof." The doctor who uses Dionol cannot deny its action. He has to admit its efficiency. He finds in the treatment of local infiammation that he can get results from Dionol unobtainable otherwise. He uses Dionol, therefore. Unfortunately, there remain a large number of "doubting Thomases" who doubt Dionol action and effect, simply and solely because they have not tested the preparation clinically. To all such there is an easy opportunity to join the increasingly large number of physicians who have become steady Dionol users. A request addressed to the Dionol Company, Detroit, Mich., will bring literature, case records, etc., that will prove well worth reading. Try Dionol.

RUN DOWN SCHOOL CHILDREN

It cannot be expected that a run-down child of underweight can keep up with his more healthy fellows. Many children, backward in their studies, could be advanced in their school work if their general health improved. It has been found that the continued use of Cord. Ext. Ol. Morrhuae Comp. (Hagee) in these children has the effect of building them up and making better scholars of them. It improves the appetite, adds strength and gives them an increased resistance against minor ailments, such as colds, etc. A marked advantage of Cord. Ext. Od. Morrhuae Comp. (Hagee) lies in its extreme palatability. As a result it may be used over long periods without becoming objectionable.

Neuralgia, Neuritis and indefinite pain, in seventy-five per cent of cases is due to a want of nerve-cell nourishment. Try the following formula—it is used by thousands of doctors: ℞ Comp. Phos. Tonic (Dowd), 3ii; Fl. Ex. Valerian, 3x. Half teaspoonful in milk half hour after meals.

MALARIA

In every recent discussion of Malaria the subject of the relapse phase has become of more prominence. The Rockefeller Foundation report to the International Health Board is practically devoted to this side of the Malaria Problem. Every effort to improve the treatment by modification of quinine administration has failed to diminish the importance of considering the relapse in Malaria. This subject has been ably presented in a Symposium on Malaria including the Rockefeller Foundation report and views of many authors in a thirty-two page book. Every physician interested should write for a copy of the Symposium on Malaria. Distributed free of charge by New York Intravenous Laboratory, 100 West 21st Street, New York City.

MILK PROTEINS

Certain proteins, as those derived from milk, have been observed to cause leucocytosis and other changes in the blood when injected intramuscularly. The defensive forces of the body are stimulated thereby and with telling effect, it is said, against a number of circumscribed lesions. Dr. Edw. Ahlswede (Arch Syph. and Derm. May, 1922) names sycosis, some forms of eczema, furunculosis, buboes, erysipelas, arthritis, epididymitis, among the lesions that can be successfully treated with milk protein injections. In Europe, quite remarkable clinical success has been reported by Bruch, Muller, Forster and other physicians of note. It is thought that they act by way of the myeloic (bone marrow) system. Injections are best made into the buttocks, their frequency varying with the case. Lactigen is the preparation to use. Literature may be obtained by writing to The Abbott Laboratories, Chicago, Ill.

THE RATIONAL TREATMENT OF RESPIRATORY CONDITIONS

That the sudden, and often extreme variations met during our Winters in the Northern section of the country, do exert a pronounced influence on the respiratory organs, the mucous membrane in particular, is an established fact. The resulting derangement of the general, as well as local, pulmonary circulation, however, temporary, predisposes the lung and bronchial tissues to bacterial infection. To state it more explicitly, the germs that are more or less constantly present in the nose and mouth, often find conditions in the deeper respiratory tract, following extreme atmospheric changes, favorable to their onslaught—and pathologic processes follow as a natural consequence. Since these "favorable conditions" consist chiefly of a lowering of the cellular activity and resistance, it is obvious that treatment to be effective must be able to stimulate the general circulation, correct tendencies to local congestion, and promptly raise the acti-

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ty and tone of the tissues of the respiratory organs, well as of the whole organism. It is the capacity, refore, of Gray's Glycerine Tonic Comp. to ac-mplish the foregoing, that makes it so serviceable bronchial and pulmonary affections. Used at the st sign of symptom of irritation or congestion of e mucous membrane of the air passages, Gray's lycerine Tonic Comp. quickly increases the tone the local tissues, regulates the circulation, and by omoting cellular activity—local and general—raises e resistance to a degree that means the pronounced lief, and often the complete control, of the processes t up by the invading bacteria. It is a common ex-rience to have the condition arrested at once, but if has progressed too far for this, convalescence will levertheless soon be established, with satisfactory re-overy following without delay. Gray's Glycerine Tonic Comp. has a well defined field of use in all espiratory diseases and many practitioners have come o look on it as their most potent and reliable remedy n this class of ills. Winter colds and coughs that re prone to linger will often respond to its influence vhen everything else has proven valueless.

A CLEVER NEW BOOKLET

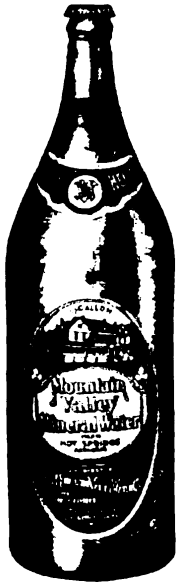
There has just come to our desk a little booklet of nusual attractiveness, describing the latest form of erfected biological syringe. The syringe container for ntitoxins, serums, serobacterins, etc., has become such an every-day affair that most of us are prone to overlook the many parts which go to make up the complete syringe. This booklet is, therefore, of interest to all who use and handle biologicals, because it takes up each little part separately and explains in detail what is necessary to make the complete, assembled syringe satisfactory. If you have not seen this booklet, we would suggest that you send for a copy to H. K. Mulford Company, Philadelphia, as you will find it well worth reading.

A PHYSIOLOGIC EVACUANT

Active cathartics cannot be used without causing irritation and inflammation, and when their administration is stopped, the constipation is almost always aggravated rather than improved. Prunoids never act as an active cathartic, nor do they excessively excite peristalsis. For this reason Prunoids are ideal as an intestinal evacuant and deobstruent. They do not cause griping or after-constipation, their action is pleasant yet positive, and as a consequence they are of especial value of relieving constipation in women, children, and the weak and debilitated, in general.

WHAT IS BRIGHT'S DISEASE?

It is an inflammation of the tiny cells that make up the kidney. These cells, when they are healthy, have the ability to pick out of the blood certain poisonous impurities which they excrete in the urine. But when the cells are hindered in their work by disease, the impurities, of course, are not so readily eliminated from the blood. That's what causes nearly all the disagreeable symptoms of Bright's disease and constitutes a real danger. How does Mountain Valley Water act in these cases? This pure, sparkling water, direct from Hot Springs, Ark., contains certain mineral salts which tend to soothe the inflamed kidney cells. Besides allaying the inflammation, Mountain Valley Water increases the flow of urine and also increases the output of blood impurities. In this way is the danger of Bright's disease largely overcome. As soon as the poisons begin to be eliminated in normal quantities, the patient notices a gradual disappearance of such symptoms as swelling feet, headaches, dizziness, spots before the eyes, inability to concentrate on work, stomach disturbances, shortness of breath, and high blood pressure.



Serviceable in the Nephritides

The results obtained from the use of Mountain Valley Water in cases of chronic Bright's disease are definite and tangible. Diuresis is established, elimination of urea and chlorides is brought up toward normal, and renal irritation is reduced to a minimum.

In all the nephritides except those characterized by anasarca Mountain Valley Water should be freely prescribed. In the anasarca cases the daily quantity should be small to begin with —about 1 pint; then the quantity may be gradually increased as the water-logging of the tissues disappears.

This pure, sparkling, palatable mineral water comes direct from Hot Springs, Arkansas. It is supplied in cases of 1 dozen ½ gallon bottles and in 15 and 30-gallon casks.

Literature to Physicians

Mountain Valley Water Company

550 Grand Avenue Kansas City, Mo. Telephone, Harrison 7084

HEALTH CLOWN PROVING GREAT SUCCESS IN INSTRUCTING SCHOOL CHILDREN ON DISEASE PREVENTION



One of the most successful ideas to get children's attention is this Health Clown of the New York Tuberculosis Society who visits schools each day and tells the children how to take better care of themselves, what and when to eat, etc. Some of the rules of the Health Clown to follow are: Fresh air, all the time. Wholesome food, especially fresh fruit and vegetables, eat slowly. Sleep, plenty of it—windows open. Teeth, brush them twice a day. Baths, at least two a week. Water, several glasses a day.
(Copyright Kadel & Herbert News Photo)

THE PROSPECTIVE MOTHER

If at all anemic, should have special attention during the period of gestation, in order that she may be fully prepared for normal parturition and lactation. In addition to cheerful surroundings, nourishing food, moderate exercise and hygienic care generally, a readily absorbable, promptly assimilable, non-irritant and non-constipating hematinic is indicated. These requirements are fully met by Gude's Pepto-Mangan, the well known combination of organically combined iron and manganese. This standard product is now available in tablet, as well as in liquid form. Gude's Pepto-Mangan in tablet form is equally as efficient, medicinally as the liquid, and is a very cleanly and convenient method of administering the remedy, for those who prefer it. Each two tablets is equivalent in dosage to one tablespoonful Gude's Pepto-Mangan liquid, the active medicinal ingredients of the two forms being identical. Samples and literature are obtainable from the manufacturers, M. J. Breitenbach, New York.

ARSENIC—MERCURY

While the cure of syphilis involves the destruction of the spirochete, it is not to be inferred that the disease is incurable even when the best spirocheticide fails. It is frequently impossible to administer arsphenamine in quantity sufficient to put an end to the infection; and it now appears that oft-repeated doses may render the spirochete arsenic-fast—that is, immune to the destructive effect of the arsenic. When this occurs, a continuation of the arsphenamine treatment alone cannot be said to be good practice. On the other hand, to intermit all treatment until the arsenic-fast organisms lose their immunity would be to give the infection a new lease of life. No one can question the value of mercury in syphilis, and this is the occasion for its use in the most direct and effective manner. A mercurial that can be given freely and with a minimum of disturbance to the patient is certain to command professional attention. Parke, Davis & Co.'s Mercurosal is said to meet these requirements. It is administered intravenously in a dose of 1½ grains (O. 1 gm.) or intramuscularly in a dose of ¾ grain (0.05 gm.). The first of the two methods mentioned is recommended on account of the larger dose and the blandness of the effect of the Mercurosal upon the blood-vessel walls. There is no corrosive action, no phlebitis, no thrombosis, no pain. Clinically, Mercurosal is said to be capable of clearing up the ulcerations, chancres, nodules and other visible manifestations of syphilis with great promptness. It is not offered as a substitute for arsphenamine, but as an auxiliary antisyphilitic agent.

ABSORPTION FROM A SUPPURATIVE LESION

While in the case of absorption of toxic materia from a suppurative focus, the first indication is to drain thoroughly, yet it may happen that considerable absorption has already taken place and may continue even in spite of free drainage. To counteract the effect of the absorbed material an agent that will raise the resistance index of the tissues is definitely needed. Ecthol (Battle), by reason of its peculiar power to accomplish this object, will be found of distinct value in septic processes, particularly those that are producing a general toxic state. Through its administration the phagocytic power of the blood is increased and the tissues are the better prepared to take care of the infectious process. As a local application, also, Ecthol (Battle) will prove of more than ordinary value as an antiseptic, healing agent.

OXYL-IODIDE IN CHRONIC TOXEMIAS

Chronic toxemias, resulting from foci of infection may deplete the thyroid and suprarenal glands. These are the glands that have most control in regulating infection; and it now appears that oft-repeated dosed drenalism is to increase the metabolic rate. Crile says, "The peculiar function of the thyroid appears to be the spitting up of iodine-containing molecules of any compound of iodine which enters into the system * * * and the conversion of iodine into a specific thyroid product, thyro-iodine." He believes that it now appears that the study of the thyroid begins and ends with iodine; that the organism is an electrochemical mechanism, and that iodine and increased thyroid activity alike have the power of speeding up the organism; that thyro-iodine (a substance which contains 5.1 per cent organic iodine) sensitizes the tissues to epinephrin. The thyroid gland and suprarenals are synergists, their effects on metabolism being similar except that the suparenals act in emergency and the thyroid acts more slowly. Oxly-Iodide, containing 33 per cent iodine in organic combination with phenylcinchoninic acid, stimulates metabolism, promotes diuresis and increases the rate of elimination of uric acid and urea. It is somewhat analgesic and is alterative. It has proved highly beneficial in chronic arthritis, myositis and neuritis especially in types of rheumatism heretofore unresponsive to therapy. In the treatment of such cases rest, heat, light rays and massage will assist the action of Oxyl-Iodide. The diet, as shown by Pemberton (J. A. M. A., Vol. LXXV, p. 1759, Dec. 25, 192 should be controlled, the carbohydrate content cut down, since there is usually lowered sugar tolerance. The average dose of Oxyl-Iodide is two 3-grain tablets taken three times daily, after meals with plenty of water. Some patients will be found who will not tolerate the iodine. If iodism results Oxyl-Iodide should be withdrawn. The average patient will tolerate the treatment, however. Oxyl-Iodide is supplied by the Drug Trade in prescription packages of 40 tablets and in dispensing bottles of 500. Additional information will be supplied on request addressed to Eli Lilly & Company, Indianapolis, Ind.

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Chronic colitis, dilatation of the catarrhal right colon, the whole viscus in irritation as shown by the excessive peristalses throughout. Fermentative type of toxemia present.

From "Diseases of the Digestive System," by Anthony Bassler, M.D., F.A.C.P. Published by F. A. Davis Co., Phila.

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An enterologist of international repute calls attention to the value of liquid petroleum in colitis. In connection with such routine measures as proper diet, he finds that liquid petrolatum aids greatly in soothing the irritated surfaces and through softening the intestinal contents, helps to overcome the spastic condition of the intestine.

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Catarrh and Common Colds

For prevention and treatment use



Catarrh "Cold" Serobacterin Mixed, Typho-Serobacterin Mixed, and Pertussis Serobacterin Mixed are now supplied in Mulford Hypo-Units, ready for immediate injection. No assembling, no sterilizing, no adjusting, used only once. Insert the needle and compress the tube. ***Four injections—four dollars.***

Catarrh "Cold" Serobacterin Mixed

in Mulford Hypo-Units

FORMULA:	A	B	C	D
M. catarrhalis.....	125	250	500	1000 million
Pneumococcus*.....	125	250	500	1000 million
Friedlander Bac.....	125	250	500	1000 million
Staphylococcus aureus	125	250	500	1000 million
Staphylococcus albus.	125	250	500	1000 million
Streptococcus**.....	125	250	500	1000 million

* Types I, II and III.
** Hemolytic and non-hemolytic, including viridans.

A sensitized bacterial vaccine, prepared from cultures usually found in respiratory organs of patients suffering from catarrh, colds, etc.

According to laboratory tests, this serobacterin imparts immediately a degree of passive immunity against pneumococci and other infecting organisms.

Susceptible patients should receive an immunizing treatment of four injections, and the maximum or "D" injection should be repeated every ninety days thereafter. When this routine is followed, relief from acute respiratory infection usually results.

Physicians desirous of including strains of influenza bacillus should specify "Influenza Serobacterin Mixed," which is the same formula with the addition of the Pfeiffer bacillus. This is the formula which was so extensively used during the pandemic of 1918 and has given universally good results for more than ten years.

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Continuing the Medical Fortnightly and Laboratory News

The Medical Herald
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Incorporating
The Kansas City Medical Index-Lancet
An Independent Monthly Magazine

ol. XLI NOVEMBER, 1922 No. 11

The Early Diagnosis of Cancer

A Symposium arranged for the Medical Society of the Missouri Valley, St. Joseph, Mo., September 22, 1922

SUPERFICIAL MALIGNANCY

E. H. SKINNER, M. D.,
Kansas City, Mo.

WHEN one is given a subject of this breadth and scope it is difficult to choose any particular phase for emhasis. The practical side of the question demands information upon the prevention and ure of superficial malignancy. The purely cientific mind will be interested in the cold nalysis of the various types of superfical magnancies and their pathological pigeon-holig.

The pathological analysis of superficial magnancy changes with the years and varies ccording to the origin and schooling of the athological investigators. The lesions which ney study are the same lesions throughout ne years.

Although there are always unlimited discussions among pathologists upon the intimate nalysis of these same persistent pathological esions, one should never get discouraged or ook lightly upon these most profound efforts o help solve an always difficult subject. These pathological investigations and studies re always the basis of better therapy. The athologist is always the pioneer and blazes he trail for a better clinical estimation, progosis and therapy.

In the first place, what shall we consider s superficial malignancy? The discussion hould undoubtedly be limited to malignancies of the skin and the muco-cutaneous junction. The field would be much larger if a few of the orifices of the body of hot great depth were unfolded. What are the most usual and frequently encountered superficial malignancies? They are the malignancies of the skin of the face which from a practical therapeutic standpoint should be divided into three areas. First, the area between the eyebrow and the upper lip which includes the cheek and nose. Second, the area of the forehead and temples. Third, the area of the chin and neck. Then we have the superficial malignancies at the mucocutaneous junction of the eyelid, the lower lip, the vulva and the rectum. We have the superficial malignancies of the integument of the extremities, especially the back of the hand and the lower leg. We should not overlook the malignant lesions of the ear and the scalp. Paget's disease of the nipples displays itself as a superficial malignancy but should not be so considered.

Then there could be the pathological classification of lesions of the integument and mucocutaneous junctions. The pathological classifications shift with the years. The latest classifications are those of Broders and McCarty and Ewing.

The practicing physician is interested in the cure of these lesions and there are several viewpoints to this side of the question. We have the viewpoint of the surgeon, the dermatologist, the radiologist and the practicing physician.

The big humanitarian aspect of this subject is the prevention of these lesions. Successful

prevention would eliminate all of these preceeding viewpoints, classifications and analytical divisions. The prevention of superficial malignancies should be the easiest part of the cancer propaganda. Superficial malignancies always offer visible disturbance of the normal tissues which should prompt the individual to seek relief and these lesions can be the most easily appreciated by the physician to whom the patient first presents himself for care. These lesions are not hidden from view like the malignancies of the breast and the malignancies of the uterus or the malignancies of the mouth. Furthermore, the superficial malignancies irritate and distress the patient. He wants to have the blemish removed, not because it is a malignancy but because it is a cosmetic detriment to his enjoyment of life. The superficial malignancies do not give much if any pain until they are in their last incurable stages. There is a little sting and itching. inflammation and crusting but there is no desperate pain, such as people endure in the malignancies of the pelvis and of the breast and the stomach.

Another point in superficial malignancy is that they always seem to develop from some persistent irritation. The lesions upon the exposed portions of the body are greatly in excess of those upon the unexposed portions. The statistics upon this phase are uninteresting, although they conclusively prove the point. It is usually possible to relieve and prevent further irritation upon the superficial skin and mucus membrane, thus stopping the continued irritation of a developing lesion. We can not as easily find an etiological factor of irritation in malignancies of the pelvis or of the breast or of the stomach. In superficial malignancy of the skin and the muco-cutaneous junction we have many persistent irritations which are part of the daily life of the individual such as the smoking of a pipe, the scratching of a mole, the daily removal of scales from a rough skin, the exposure of the skin of the face and hands to the elements of wind, sun, dust, chemicals, flying grain, straw, sand, etc.

The therapeutic analysis includes surgery, roentgen ray, radium, ultra-violet radiation, electro-thermic coagulation, carbon dioxide snow, cautery paste, actual and electric cautery and sunlight.

It usually happens in medicine that where there is a multiplicity of therapeutic agents there is a paucity of clinical results. But, although I have enumerated several, but not all of the methods of therapeutic attack, it nevertheless remains true that each one of these methods of treatment achieves results in superficial malignancies when it is applied by one who is experienced in this particular method of treatment. I have seen good results from every one of these method. I have seen failures after each one of these methods. I have seen the same case submitted to several of these methods and I have seen the same case show no results under certain treatment and achieve a result under others. The wise choice of the method should depend upon a careful analysis of the pathology of the lesion and a wise choice of the best method as determined by statistics and experience.

Of course, if a case of superficial malignancy gets in the hands of an experienced individual in any one of the above methods of treatment he will probably achieve a result, but the mere possession of apparatus which duplicates that of the expert does not assure the patient of the same results when it is handled by a tyro or inexperienced physician.

We believe that for the great majority of superficial malignancies radiation therapy as produced by the roentgen ray, radium and ultra-violet rays, achieves the greatest statistical number of good results and that this therapy can be successfully accomplished by the greatest number of physicians throughout the country. This radiation therapy should now be available to everybody in America. Radiation apparatus is widely enough distributed so that no one can say that they can not get in touch with the experienced physician or can not afford the treatment.

Furthermore, this radiation therapy achieves results in widely varying technic. The more flexible any technique, the more universally it is serviceable to the greatest number. The flexibility of the dosage in radiation therapy, whether the treatment is applied with filter or without filter, and with good apparatus with high voltage or small apparatus with low voltage and with gas tubes or Coolidge tubes, is interesting and proof of its values. As I say, any treatment which is available in so many different types and forms of apparatus and under such very flexible dosage and which is so universally distributed and in which the statistics show a constant high percentage of results is a therapy to tie to. Of course there will always be some individual radiologist (and I use this term radiologist to include those who are specialists in the rotntgen-ray, radium or ultra-violet radiation), there are always radiologists who have a little higher per centage of results than others because they apply themselves dilligently to working out a technique for the various types of cases as determined by their pathological classification. Take, for instance, the radium therapeutist. If he has simply radium packs, he will not be able to accomplish the results of the radium therapeutist who possesses packs, capsules, needles and probably emanation points. Furthermore, the radium therapeutist who also

uses electro-coagulation will be able to prepare certain types of patients for radiation therapy so as to shorten materially the time of treatment and insure a better and more permanent result. Furthermore, the radiologist who is able to recognize the case which demands surgery and who will turn this case over to the surgeon for proper attention is going to have much better statistical records.

We could go on discussing the anatomical, pathological and therapeutical classification of superficial malignancy forever and yet the one big thing is the **prevention** of these lesions. This seems to me to be one of the simplest phases of cancer education, if any educational propaganda can ever be considered simple. The mere fact that these lesions are always superficial, that they irritate, that they display themselves for months and years before they develop malignant characteristics, that they have a long pre-cancerous history and that they are due to persistent irritation which may be prevented, instigated or anticipated seems to me the most hopeful feature in the whole situation. If we could successfully inculcate the idea into the mind of every physician and ultimately into the mind of every adult individual that any superficial lesion which does not heal under simple remedial measures is a pre-cancerous or a cancerous lesion and should be submitted to specialized therapy, then we will materially reduce the number of incurable lesions which we see nowadays, and all of these early cancers or pre-cancerous lesions are curable by radiation therapy or surgery.

Surgery is not necessary but it is effective.

Radiation therapy is both necessary and effective.

Actual cautery is effective but disfiguring.

Radiation therapy produces the greatest number of results with the least demand upon the tissue economy and welfare of the individual.

EPITHELIOMA

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TO the physician, an epithelioma is a cancerous growth originating from squamous epithelium. However, what most interests the dermatologist are the precancerous dermatoses. And, even though this point is now conceded by all dermatologists, neither the profession at large nor the public in general are as yet educated up to it. But there are many signs of an awakening.

The author will confine himself to a brief discourse on what are considered precancerous dermatoses, for the reason that the greatest strides in the campaign against cancer are at present to be accomplished through their ready recognition. It is a well known fact that a large percentage of cancers begin in the skin, or epithelium, and therefore it has been entirely within the dermatologic field of research to make the best observations as to what conditions actually precede true cancer. And by true cancer we mean both sarcoma and carcinoma.

It should not necessarily be left entirely to the dermatologist to recognize precancerous dermatoses, even though it finally may be in his province to pass his expert judgment.

Briefly, let us consider what conditions of the skin actually precede seats of epithelial tumors, often of an exceedingly malignant nature. It is not the purpose of the author to present the various conditions in their order of frequency because at the present time this has not been definitely determined.

The various keratoses form the prominent cutaneous lesions that become cancers. Certain of the soft nevi, however, especially the common pigmented moles and scars resulting from various causes, either infectious or traumatic, are apt to become the seat of epithelial tumors. For many years it has been known by dermatologists, and to somewhat lesser extent by other physicians, that the most virulent form of cancer, the melanotic sarcoma, always has its origin in either congenital or acquired moles, especially those that began to grow or showed any signs of ulceration or that were subject to continuous irritation. The dangerous moles are those that are almost flat, easily become pigmented or are known as the common moles.

The first clinical exidences of malignancy are often very slight. There may be a slight growth over a beginning ulceration, possibly followed by the development of a tumor. In any event the condition to be dreaded is the wonderfully rapid formation of metastases, either in the skin or in the glands of the viscera, which may often take place before any change is noted in the mole. The first pathological evidence of malignancy is to be found in the invasion of the corium just beneath the retè and above the nevus, by the nevoid cells.

Seborrhoeic warts, also called senile warts and seborrhoeic nevi, are very common seats of cancerous development. They appear on the backs and faces of elderly persons, and when they appear upon the face they usually develop on the temples or about the nose. The various types of seborrhoeic warts usually known as keratotic, nevoid and verrucose develop rather slowly, and none of them disappear spontaneously. Those lesions situated upon the face usually terminate in basal-celled cancers. It is only occasionally that a

prickle-celled cancer develops in this situation. When lesions appear upon the back of the hand they frequently develop the prickle-celled type. The first malignant change is a slight ulceration accompanied by a serous discharge.

It is a rare occurrance when more than three or four, but more frequently there is only the solitary patch of keratosis upon the face or hand of an elderly person. Histologically, the changes are very similar to those appearing in senile warts, and thus these patches may become very malignant.

It is not an unfamiliar fact that arsenic may cause kerotoses through the internal administration of the drug, and these may eventuate in carcinomata of the prickle-celled type.

Cutaneous horns often become malignant at the base through ulceration, secretion and induration.

There is also a prevalence of cancer in certain workers in substances having irritating effects upon the skin, especially around the hair follicles, where keratoses form only to later change into cancerous degeneration.

Beginning with an inflammatory hyperemia and a freckle-like condition, both of which are doubtless of protective intent only on the exposed parts of the skin, the clinical course of xeroderma pigmentosum develops keratoses which become malignant, of slow growth and typical of rodent ulcers.

Sailors and farmers, who are much exposed to weather and sun, develop on the exposed parts a diffuse cyanotic redness, or pigmented spots, and the skin becomes dry and hard with resulting keratoses, which condition may last for years, usually developing into basal-celled carcinomata that run the clinical course of rodent ulcers.

Startling enough, many physicians were in former years subject to X-ray dermatitis, which in every way is analogous to the condition just described, and usually developed into either basal-celled or prickle-celled type, or a mixture of the two.

Paget's disease is still in a dispute as to whether this often considered precancerous condition may not be secondary to the cancerous changes.

The scars of various dermatoses may first show a manifestation of superficial ulceration. Most prominent of these is the scar resulting from burns of the third degree. Cancers resulting from this type are usually of the spinous-celled variety.

Where lupus vulgaris or erythematosus has existed through many years' duration it is frequently complicated by cancer. It is usually stated that about two per cent of all cases become cancerous, and appear more frequently upon the face than elsewhere. The tumor almost invariably is of the prickle-celled type.

As cancer prefers to originate from a dry surface and not from a moist one, chronic leg ulcers rarely become cancerous.

It has even been known that blastomycosis may become cancerous.

Inflammatory dermatoses show little tendency toward giving rise to cancer of the skin. Most likely in those cases reported it is probable that the cancerous development resulted either from the treatment or the formation of subsequent scar tissue.

Sinuses and fistulas, when the frequency of such conditions is considered, are rare seats of cancer.

The walls of wens are occasionally subject to malignant changes. Nevi, either vascular or pigmented, occasionally become sarcomatous and very rarely carcinomatous. Chronic irritation frequently gives rise to either basal or prickle-celled cancers in what are commonly known as papillomas.

The line separating malignant from benign epithelial growth is often very obscure. Cancer always originates from some abnormality of the skin and not from the normal. There is only one conclusion, and this is that every apparently harmless growth of the skin should be removed. By this procedure there will result fewer cancers.

GASTRO INTESTINAL CANCER

J. M. BELL, M. D., F. A. C. P.,
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CANCER of the intestinal canal has its peculiarities. Above the pylorus and below the ileum it is common, within the duodenum and jepunum it is rare, only one per cent of all cases occur in the small intestine. This is due presumably to the protective influence of secretin as worked out by Prestiss of El Paso. According to Pennington, one case out of every eleven has rectal cancer and of these 84 per cent of the lesions are within reach of the exploring finger. Trauma plus bacterial invasion still hold as the principal etiological factor. In the mouth, ragged teeth and incessant smoking make up the indictment. As we follow the course of the digestive tube these same influences, trauma and infection continue to obtain, as evidenced by the location of the common sites—the cardia, pylorus, ileocecal juncture, sigmoid—the sphincters and flexures. The factor of age has been a stumbling block to diagnosis. While from 40 to 70 years is considered the cancer period, of life, cases are recorded in children under 5 years. After this period the mortality rate slowly increases up to 45—beyond that it increases by leaps and bounds to the seventh decade. Malignancy of the intestinal tract is essentially a disease of

ilization. It is comparatively infrequent ong primative or pastoral people. It in- ases with culture and refinements of life, l the pinnacle is reached in our own lofty l boastful land of the United States of nerica. Hospital records show in this coun- one case in 95; in England one case in 220. hat factor or factors are to blame? We will ke better progress in our search for the real se if we admit the stand taken by Smithies Chicago, that malignancy of the intestinal ct is not a local disease, per se, but a gen- l body disturbance with a local manifesta- n. The primal etiological factor then must be sought in the stomach. The course of disease may be studied here, but the pre- inaries are hidden deeper. He who deter- es the etiology will give us the cure. For n the recognition of cancer is uncertain. wick in his hospital report, shows 56 cases nitted during a year with the diagnosis of cer, but in only 31 cases was the disease ved to exist. Age is suggestive only, 70 cent of cases occur between 60 and 70 rs. Negroes are more susceptible than ites by 40 per cent.

It is more common among the well to do; latively infrequent where poverty exists. om this observation we might blame fresh, ooked, imperfectly washed vegetables with nure contamination, too much animal food, diments and lack of physical exercise. Al- ol is not to be considered except where essive use lowers resistance, and permits er factors to act more energetically. In re- ts by Osler and McCrea 51 per cent of cases l alcohol freely. Tobacco users, even to ss, constitute 41 per cent of cases. Hard es of food or gritty particles seldom injure mucosa, but external injuries play a part later development. It is remarkable that e than half the cases come from the farm small towns, in spite of abundance of fresh nd an absence of overcrowding, again sug- ive of the trauma incident to farm work infection from manure infected vegetables. he hereditary factor is debatable and is e to be weighed than in tuberculosis. A t most discussed today is the relation of ic ulcer to malignancy. Here there is a rgence of opinion—Hammeter of Balti- e declares that few cases do so originate. o holds the opinion that many cases do. learer theorem might thus be stated, how y cases arise not from ulcer, but from ma or from an area of congestion, in a re- associated with stasis, either venous or phatic or both? We recognize cancer ng de novo, or as it is declared, some ul- are malignant from their incipiency. Can- does develop without passing through an r stage, as for instance such cases as are found at the pylorus—a broad, deeply seated area of dissiminated malignancy, which shows no particular solution of mucous surface nor any scar of ulcer. Such pathology may result from trauma with venous and lymphatic stasis, augmented by bacterial invasion, back of which is a systemic fault which prohibits prompt restoration from the original trauma, be it internal or external. The idea of venous and lymphatic stasis is borrowed from Buckley of New York. It is most plausible. Add to it trauma as an anterior element and the picture is complete.

We admit that ulcer may recur, whether from medical or surgical treatment, every 2, 3 or 4 years. We have all observed this. Nor do we blame our treatment. The local manifestation has disappeared, but the question remains, have all the associated tissue factors been disposed of, stasis—and has the patient lived the life conducive to health, as suggested by Brown at the St. Louis meeting. Has he eaten more carefully, smoked less, slept more, avoided fatigue and carried out these factors which make for robustness after being dismissed as cured, when his weight increased, occult blood disappeared, appetite and digestion back to normal, pain gone, no more hyperacidity. Has he helped to keep himself well? Has he learned to live in somewhat restricted limits? These considerations must be met. Einhorn declared ten years ago that the patient is not cured until six months after subsidence of all symptoms.

This trend of thought suggests the cure, or rather the prevention of malignant development.

Are we to follow the dictum of Deaver, that all ulcers must be operated upon? The sentence is too severe. The pendulum has swung far the other way after more general study of cases. The consensus of opinion at the St. Louis meeting of the A. M. A. was that the internist is warranted in retaining the case even after a second, third or fourth recurrence, of uncomplicated cases. I would add to this opinion the amendment, that if the general health is looked after and that systematic background eliminated, if the patient will cooperate with the doctor in following a hygienic life, observing those laws which develop robustness—rational diet, clean teeth, rest, proper exercise and avoidance of excesses—there will be fewer recurrences of ulcer and fewer cases of malignancy. There will always be a margin of cases to go to the surgeon. There are those cases of a systemic fault in which a negligible trauma, inside or outside, with venous and lymphatic stasis already in existence, have created a sequence which at once tends toward malignant proliferation instead of the normal physiologic resolution of the tissues.

It does appear—that putting together all the factors we possess, the indictment of gastro-intestinal cancer is complete. The intestinal tract is made up of highly vascular tissues, hence readily inflamed. Add to this Turk's experiments that feeding pathologic bacteria will of itself develop ulcer—the constant presence in the greater part of the canal of extensive germ life which lowers resistance; the recklessness with which our people eat and the rapidity of eating, plus ice cold food and beverages, together with a systemic background of lowered resistance—the prevalence of constipation, the subsequent colon stasis, venous stasis—putting these elements together, that untoward cell proliferation we call cancer is inevitable.

From a study of the work of Smithies of Chicago I am led to believe that the earliest diagnosis of gastric malignancy is made by the microscope by a study of freshly removed tissue.

Even gland metastasis is misleading as to the extent of malignant epithelial hyperplasia, since small glands may contain a greater number and more active canver cells than do large ones. General symptomology still lacks definiteness. Nor is X-ray conclusive. It is not the last word in diagnosis except as a confirmatory detail. Deformity may be caused by extra gastric conditions. Filling defects my arise from pathologic entities other than cancer. Roentgonology is of immense value in arriving at gastric diagnosis, but when men continue to send patients to the X-ray man for a diagnosis without any clinical study, and accept such dictum whether it coincides or not with clinical symptoms, they must expect disappointments. Gastric disturbance may exist 10-20-30 years before malignancy begins. Pain, nausea, vomiting, loss of weight, hemorrhage, all may exist, but cannot be so systematically arranged as to give an early diagnosis. Previous history is a large factor when considered with the existing condition. Hyperacidity, hunger pains, occult blood may have existed in years past and the anatomic damage done then. Later, the denuded surface may seal over, Oxyntic glands atrophy, occult blood disappear, while the pathologic process descends into deeper structures beneath the mucus surface, presenting a different clinical picture. Now, instead of periodic gastric upsets, with intervals of weeks or months, the disturbance becomes incessant.

Such a history is suggestive of malignancy, but only suggestive, we have nothing definite without a histologic examination. Yet, I would not give the surgeon license to open every abdomen presenting gastric symptoms, any more than I accept Deavers view of operating upon every gastric ulcer. All enternists must realize how many cases of appa chronicity do completely recover their bal and retain it indefinitely. To popularize ploratory laporotomy for gastric ana would lead us to a greater operative fr than we have had with appendectomy.

One more point—the education of the lic. People must be taught that here, as where in the body, there are no early sy toms. That emaciation, pain, black stools blood may mean only ulcer, but freque cancer, already developed. That digestive turbances must not be ignored. That dec teeth must be removed. That rapid and discrimate eating lowers resistance of the testinal tract. That cancer, like ulcer, steal on with very little symptomology, that any intestinal disturbance if long en tained may be fatal. In other words edu against intestinal cancer just as we do aga that of the breast, skin or uterus. Obse anticipate.

CANCER OF THE UTERUS

By PALMER FINDLEY, M. D., F. A. C. S
Omaha, Nebraska.

I QUOTE from one of our oldest treat in Gynecology—"Females and Their I eases," by Miegs, published in 1848:

"There is a frightful malady to which w en, the subjects of these letters, are very m exposed; I mean carcinoma, or malignant generation of the womb.

"I have little to say on this subject, an might add, there is little to be done for th who are attacked with it; I mean little to done under prospects of curing the persons attacked, or restoring their health.

"It is enough to make a physician's he sink within him to make the diagnostic of c cer uteri, for such a diagnostic is **ipso fact** prognostic of death; and when the physic has made it, and is brought to the point of g ing true expression to his opinion, he might supposed to be as painfully situated as an E lish judge, when he puts on the black cap fore the final announcement of the judgm unto death."

Frankly, gentlemen, does not this eloqu confession of one of our foremost pioneers gynecology voice the sentiments of us all w we find ourselves confronted by this perpl ing problem? And may I ask if there is within my hearing who has the courage to to a woman who presents herself with a fr cancer of the cervix, "Madam, I can cure if you will submit to operation," or "Mad I can cure you if you will submit to ra therapy?" For myself, I confess an utter l of confidence in the cure of cancer of

rvix. I do not decry the work nor doubt e word of some of my enthusiastic friends ho are finding encouragement in surgery and diotherapy in the cure of this malady. They e men of integrity and ability and their final onclusions should be awaited without preju- ice in the hope that lasting benefit may come om their endeavors. But when we read of ie results they are having from the applica- on of radium and the roentgen rays we re- ll that these same men were but a few years go the exponents of the radical abdominal peration of Wertheim and we ask in all can- or will radiotherapy stand the test of time? rom my limited experience, which totals not ore than thirty cases treated by radium, I m forced to the conclusion that we have in dium—not a cure but a palliative remedy. hat it will do in the earliest stages of the isease I do not know for the reason that I do ot see such cases and if I did I am quite sure at I would advise operative measures.

Let me say at the onset that there are no arly symptoms of cancer of the cervix and it s for this reason, above all else, that we sel- om see these cases when surgery or radio- herapy or both combined will do more than rolong life and relieve distressing symptoms or a time.

Loss of blood does not occur until the tissues nvaded with cancer cells begin to break down; oul discharges are the result of necrosis of the nfiltrated zone, pain is not present while the alignant invasion is confined to the cervix nd loss of flesh and cachexia is the result of ss of blood, pain and toxic absorption. The bservations of Schottlander demonstrate that n not a small percentage of cases the early rowth of cancer is well beneath the surface pithelium and that the invasion is well under ay before it comes to the surface and gives ise to symptoms of any sort.

If, then, we cannot rely upon the early symp- oms of cancer, wherein does our hope lie in aining control over the ravages of this dis- ase? The American Society for the Control f Cancer has launched a campaign of educa- ion and we are instructed by this organiza- ion to say to the lay public that cancer can e cured if taken in time. I quite agree with his proposition but how are we to get the ases "in time" if there are no early symptoms f cancer of the cervix? It seems to me to be ure sophistry to say that cancer of the cervix an be cured if taken in time; to tell women hat the early symptoms of cancer of the cer- ix are, knowing full well that though the oman presents herself for examination on he very day of the first appearance of irreg- lar bleeding she may have a well advanced ancer—one that will not permit of a hopeful prognosis. Personally I am an enthusiastic supporter of the American Society for the Con- trol of Cancer and I hope to devote much time and energy to the furthering of its cause in the future but my enthusiasm is not in the prospect of curing cancers of the cervix—cer- tainly not with the facilities now at hand. But I have the utmost zeal in preaching pre- vention of cancer of the cervix for I believe with Schottlander that cancers of the cervix arise out of pre-existing erosions or what amounts to the same thing—lacerations of the cervix with eversion of the cervical lips which exposes the cervical mucosa to the irritating influences of the acid secretions of the va- gina. It is in the prevention and correction of these precancerous lesions that I can find encouragement. Routine pelvic examinations of women will reveal these lesions and their relief will prevent the development of cancer to a very large extent. Herein "prevention is better than cure" and the more so since the cure is so seldom attained.

Looking upon erosions and eversions of the cervix as precancerous lesions how are we to determine with certainty the beginning of ma- lignant changes? In all suspicious cases we are instructed to remove a wedge from the zone in question and submit the excised por- tion to a microscopic examination, but so far as I can recall I have never seen a case that was not recognized by a very simple procedure —one that was relied upon by the older work- ers in the field. I refer to the friability and the bleeding of the cervix when grasped by a teuaculum or gouged by the examining fin- ger. No other lesion of the cervix presents the characteristics of friability and bleeding to such a degree as does cancer. Syphilis, tuber- culosis, erosions and simple ulcers of the cer- vix may bleed slightly on handling but never freely and the tissues are not friable.

In conclusion permit me to again place all due emphasis upon erosions and eversions of the cervix as precursers of cancer and to sub- mit the proposition that all such should be eradicated in the hope that by so doing cancer of the cervix may be prevented.

CANCER OF THE BREAST

DONALD MACRAE, M. D., F. A. C. S.,
Council Bluffs, Iowa.

(The copy of this paper could not be ob- tained in time for this issue. We hope to pre- sent Dr. Macrae's paper in our next issue.— Ed.)

HOW FAR CAN THE CANCER DEATH RATE BE DECREASED BY EDUCATING THE PROFESSION AND THE LAITY?

By FRED J. TAUSSIG, M. D., F. A. C. S,
St. Louis, Mo.

THE first organized effort to influence the cancer death rate by teaching the laity and the profession the importance of early recognition was made in 1902 by the gynecologic clinic of Koenigsberg, East Prussia. Two years later a similar suggestion was made at the International Congress of Arts and Sciences in Saint Louis and as an outgrowth from this suggestion there gradually developed from 1905 to 1915 in the American Medical Association the Council on Public Health Education, a movement to educate the laity concerning cancer and other matters of public health. The movement to control cancer by educational methods, however, did not gain much headway until after the meeting of the American Gynecological Society in 1913 when the subject of educating the public was again debated. It was after this that it was found possible to interest a group of laymen to contribute funds for carrying on this educational propaganda on a national scale. The headquarters of this new national organization, The American Society for the Control of Cancer, was in New York and most of the officers and contributors were originally New York people. Through the energy and ability of the executive secretary, Mr. Curtis E. Lakeman, much was accomplished in the succeeding five years, until the war temporarily checked the society's activities. Since 1919, under the presidency of Dr. Charles Powers of Denver, the movement has gained renewed impetus. One of the first things Dr. Powers did was to organize every state in the Union so that agencies could be formed all over the country ready to assist in the distribution of literature, the giving of lectures and other ways of promoting publicity on the subject of cancer. Through Mr. Lakeman much had been accomplished in getting articles and editorials concerning cancer printed in the newspapers and periodicals of the country but this has been more than doubled through the activity of the present organization.

Doubtless the most effective piece of work that the society has accomplished thus far was the nation-wide campaign of education during Cancer Week last November. By setting a definite time and concentrating their publicity campaign during that time the society accomplished more at one stroke in bringing the essential facts concerning cancer to the attention of the public than had been done in many years previously.

The society is planning a similar concentrated campaign of education during National Cancer Week this year. The time set for this is from November 12th to November 18th. I trust all of you will help to make it a success in your respective states.

As to the methods used by the society the most important feature of our campaign has been the publication in the principal periodicals and newspapers of the country of carefully worded articles dealing with the early symptoms of cancer, the importance of early recognition and the necessity of prompt and appropriate treatment, usually surgical. In addition a certain number of talks and addresses on cancer are given by physicians, nurses and specially trained social workers to organized groups of laymen and women, and literature is usually distributed on such occasions. Other means of bringing the subject more strikingly before the public have also been employed . Dr. Findley utilized the airplane service in Nebraska for distributing literature. Street car signs have been used in some cities. In Saint Louis we had special exhibits and cartoons in the large department stores and on triangular placards at ten of the prominent intersecting street corners. In all this educational work we have scrupulously avoided presenting the gruesome side and emphasized as far as possible the more hopeful features of the problem. We have also striven for simplicity, not trying to crowd into the minds of the laity a lot of facts concerning cancer, many of which they would probably get twisted or forget, but drumming constantly on that theme, that we have adopted as the motto of our society: "In the early recognition and treatment of cancer lies the hope of cure."

Just how many lives can be saved by such a campaign of education has to my knowledge never been even tentatively analyzed. Hence the following attempt has been made to put it into some definite figures.

The question of life or death in a patient afflicted with cancer depends primarily upon four points: (1) the location of the cancer; (2) its virulence; (3) its duration; and (4) the treatment instituted. Only the two last named, the duration and the treatment, are within our control. Hence it is that until some new method of treatment is discovered, the only means of lowering the cancer death rate is by shortening the duration of the disease before treatment is begun. At present ninety thousand men and women loose their lives annually in the United States because of cancer. No matter how short the time that has elapsed from the appearance of the first symptom of the disease to the time of first

reatment and no matter how well our treatment is administered, over one-half of these ninety thousand persons are still in the present state of our knowledge doomed sooner or later to lose their lives from this disease. Realizing fully this painful truth, we can nevertheless take up the cudgels in our fight against cancer with the assurance on the other hand that there are still tens of thousands who can be saved annually if only the facts concerning the early symptoms and proper treatment of the disease were brought home to the people far and wide throughout the country.

In trying to analyze just how much can be accomplished in the control of cancer by such an educational campaign we must appreciate the fact that no matter how perfect the organization or how much money there may be at hand for purposes of instruction, physical conditions alone in this country will prevent this health information from reaching more than ninety per cent of the people. The world war brought out clearly the alarming high percentage of our citizens who could neither read nor write. In the mountains of Tennessee and Missouri, in the desert plains of the West and the swampy regions of the South, health education will for many years have difficulty in finding a trail. And we must deduct a further fifteen per cent from this ninety, since at least one out of every six persons who is told about cancer either refuser to believe what has been said or forgets all about it a few days later. With the most perfect organization, therefore, we are doing well to spread the gospel of early recognition to 75 per cent of the people, to three out of every four persons. Don't let us exaggerate what we can hope to do with this educational campaign. It takes two to make a bargain. The most wonderful system of teaching in the world will fail if the pupil is unwilling to learn. It is this that makes it hard to get results. In health instruction we meet naturally with religious prejudices and indifference. Let us be content to have as our aim, imparting this lesson to at least three out of four persons.

I said that the question of curability of cancer depended in the first instance upon the organ in which it starts. Cancer of the skin is a very different thing, both in the ease with which it is cured and the ease with which it is recognized, from cancer of the stomach, since the latter usually is too far advanced for cure by the time the diagnosis is certain. Mortality statistics usually group cancer into seven main classes according to their point of origin. Based on the figures of the year 1914 we find that, counting only the states where accurate mortality records were kept, out of a total of 52,420 deaths from cancer, 2,270 were cancers of the buccal cavity, 19,889 cancers of stomach and liver, 6,745 cancers of peritoneum, intestines and rectum, 8,152 cancers of the female genitals, 5,423 cancers of the breast, 1,957 cancers of the skin and 7,984 cancers of other organs such as kidney, bladder, lungs, etc. Grouping together the four more favorable types (skin, mouth, breast and uterus) we find that they total only 17,802 deaths, whereas the three groups of internal cancers (stomah, liver, intestines, lungs, kidney, etc.) amount to 34,618 deaths. In other words two out of every three cancers are deeply situated, thus making the problem of early recognition and complete eradication a very difficult, if not altogether impossible, undertaking. This is why our fight against this disease is at such terrific odds. Most of the advances that have been made in the last ten years in the treatment of cancer with radium and deep X-ray are in the domain of the more external cancers, while the internal cancers except for a few minor improvements in diagnostic methods, remain almost as much of a baffling problem as before. Five years ago I took occasion to estimate from these mortality statistics as above given what might in the last analysis be hoped from our educational campaign. I estimated that if the patient had come to us on the first appearance of symptoms we should save 50 per cent of the mouth cases, 30 per cent of the peritoneal, intestinal, rectal groups, 80 per cent of the skin cases, 50 per cent of the breast cases, 40 per cent of the female genital group, 10 per cent of the stomach and liver group, and 25 per cent of the kidney, bladder and lung group. These figures totalled a saving in life of 14,678 persons by prompt surgical treatment. From this an operative mortality of 10 per cent had to be deducted leaving 13,211 lives that might have been saved in this registration area. Taking these figures in proportion to the entire United States, I figured that it meant a saving of about 20,000 out of 80,000 deaths by educational propaganda. The improvement in the last five years by better technique would raise the saving of the uterine cases from 40 to 50 per cent as a maximum, of buccal cancers from 50 to 60 per cent and of breast cancers also from 50 to 60 per cent. This would add a little over 2,000 to the lives that could be saved, making 22,000 out of 80,000 deaths or in accordance with the latest figures of 90,000 deaths from cancer annually in the United States, would make as our ultimate aim the saving of about 25,000 lives by means of our educational campaign. How much of this job we can do each year remains to be seen but that it is big enough to justify the time and money spent in its accomplishment is self-evident.

Let us get these figures clearly in our mind.

Nothing in the wide world could with our present knowledge save the lives of all the ninety thousand men and women who die annually of cancer in the United States, but at the present time with no change in our knowledge of the disease, simply by a nation-wide campaign of publicity directed with a view to reaching at least 3 out of every 4 persons in this country we can effect a saving in human lives from this disease amounting to approximately twenty-five thousand men and women. Who can sit still when it is possibly merely by education to accomplish such an amount of good to the community. Who will dare to say that until we discover the cause of cancer no real advance can be accomplished. Of course to accomplish this saving of 25,000 lives no ordinary methods of publicity will suffice. To accomplish this will require an intensive nation-wide effort in health education on the part of the physicians of this country such as they have never before attempted.

In conclusion let me revert for a moment to the plans for National Cancer Week, November 12-18th. We, in the American Society for the Control of Cancer, are seeking the united support of the medical profession during this week. Unless you all do your share in the accomplishment of this big job it will be a failure. Let us try to get the news into every home that cancer can be cured if recognized in its early stages. There are also always certain danger signals which demand a careful physical examination. I need not speak to an audience of this kind about the urgent necessity of a complete physical examination in every suspicious ase. We should never be too busy for that. And I think the time has come when the doctor who writes prescriptions without an examination should be put out of business. Facilities for microscopic diagnosis are daily becoming more accessible, so that every practitioner, no matter in what secluded village he may live, can make an early diagnosis if he will but take the pains to examine and, if necessary, call in the appropriate consultant. The vast majority of cancer patients do not come to the specialist at first but seek the advice of their family doctor. Without his help we are lost in this fight to save 25,000 livse from cancer.

As for the educational campaign during Cancer Week, if each one of you will get in touch with the officers of your county medical society, you can help to stir them up to increased activity. Literature an be obtained upon request from the Chairman of the American Society for the Control of Cancer, for your state or directly from Mr. F. J. Osborne, Executive Secretary of the Society, at 370 Seventh Avenue, New York.

Let all help! Only by united effort can we accomplish this end.

DISCUSSION

DR. HOXIE (Kansas City, Mo.): This excellent symposium on the cancer problem from men who have demonstrated their ability has brought to my mind the sad realization that the medical profession is not yet united on the subject. In the first place, we do not seem to be all agreed as to the origin and nature of cancer. Some here have expressed the belief that cancer is due to the irritation of the tissue. Others have seemed to maintain the other theory of congenital misplacement of epithelial tissue. Still others might bring up the theory that we are finding a greater proportion of cancers today in our type of civilization than exists among the uncivilized races because of the irritation of our bodies from the absorption of so much free carbon. This diversity of opinion justifies the continuance of the cancer research hospitals and the investigation of the causation of the disease.

The next point of importance seems to be the advice that we should give to the laity; namely, that when any suspicious lump is observed, that when there is a possibility of cancerous degeneration anywhere in the body, they should seek out a good diagnostician and let him spend the necessary time to make a diagnosis. We ought to teach the laity that a diagnosis is usually not made in one office call. Observation of the patient's general condition, as well as a close study of the tissue involved, may be necessary before profitable advice could be given by any conscientious physician.

On the other hand, we ought to warn the laity against the use of inadequate methods of treatment. The use of pastes is seldom justifiable in this day and age because surgery and radiology together proved the only efficient methods of treatment of cancer.

My own observation leads me to believe that the greatest stumbling block to the eradication of cancer lies in the unwillingness of ordinary men and women to submit to radical treatment early enough to eradicate the disease. Because of this experience on my part, I am heartily in favor of our making public talks on the matter of cancer and advising people of these facts: First, that cancer can only be cured by complete removal; second, that the diagnosis of cancer is not easy; and, third, that they should go only to a thorough diagnostician for that service.

HEALTH IS AN ASSET

"Health of itself makes life a perpetual joy. Nothing daunts, nothing overawes, nothing discourages and nothing overpowers the man and woman possessed of health. Health means not only vigor and energy of body, but also clarity and strength of mind, purity and beauty of soul. The healthy person dominates life instead of allowing life to dominate him. He scarcely thinks of his body as consisting of parts or as performing separate functions. To him the body is but one harmonious whole. To such a man work is a joy. He regards obstacles as but opportunities for testing his strength. He hardly knows what weariness is. He never experiences exhaustion. Merely to grasp his hand is a pleasure. To peer into his mind serves as a stimulus to higher achievement. If you have health, then cherish it, guard it, and treasure it as you treasure life, for out of it are issues of life."

PRESENT STATUS OF THE FIBROID TUMOR QUESTION

By HERMAN E. PEARSE, M. D.,
Kansas City, Mo.

IT is an honor and a pleasure to meet with you this afternoon and go over together the subject of tumor growths of the uterus—fibroids, myo-fibroids, and myomas. The factor of surgery is the dominant factor in management of fibroids. The dangerous complications can be most safely handled by surgery, and the cure can be most rapidly accomplished by surgery. But no one desires a surgical operation, and for that matter no one desires a fibroid tumor. So we will spend the afternoon studying questions.

(1) How can the tumor growth be avoided?

(2 How can it be cured without surgical amputation?

(3 When and how to operate? When to use radium? When to use X-ray?

The growth of a fibroid tumor probably comes about by an ovarian dystrophy. If there is need of restraint of the fluxionary function of the ovary as evidenced by too free a flow, or by too much red blood in the flow, or by clot formation, or by too long continued a flow, it should be done by early care by the medical man. For there is apt to be too free exercise of the trophic function of the ovary at the same time and if there is, fibroid tumor, single, multiple, discreet or diffused will be quite sure to form. These matters are for the medical man to discuss. Surgical tinkering in young women with menstrual disturbance is useless. The problem is one of endocrine disturbance and must be met accordingly.

The ovary has two functions; two spheres of action which it exerts on the uterus. The first is a fluxionary one; the second is a trophic one. The fluxionary action of the ovary is that which determines the flow of blood to it. It has to do with the production of hyperemia, which nourishes the uterus during its growth and enables the uterus to perform the function of menstruation. It determines an increase in its blood supply several days before the woman menstruates, and maintains a steady pressure of blood through the uterus during its menstrual days.

The trophic influence of the ovary has to do with the growth of the uterus, with the growth of the breasts, and with the general perfection in growth and function of the entire female characteristics system of the woman.

The conditions under which these structures grow if carried to undue limit would produce the very conditions which we find in fibroids; namely, an uncontrolled riot of tissue growth built into the shape of tumors and growing far beyond what it should grow. It is probable, then, that the trophic influence of the ovary has much to do with the hypertrophic deposits which make up fibroid tumors. It is also probable that the fluxionary influence of the ovary has very much to do with the determination of the blood to the uterus which produces the symptomatology of fibroid tumors, much of which is pain and hemorrhage.

There are additional reasons for supposing that ovarian influence has much to do with the growth of fibroids, and it has to do with the functionating and the control of function of the uterus. 1. Fibroids cease to grow during the nursing period, just as menstruation ceases. 2. The removal of the ovary causes the shrinking of fibroids, just as it causes shrinking of the uterus, loss of the rugae of the vagina, loss of the pubic hair, and the general fading away of the lines that mark young womanhood, and bringing up the lines that mark old age. 3. Irradiation by roentgen ray or by radium has its effect on fibroids secondarily only to its effect on the ovary.

Again comes the fact that practically never do we find tumors growing in those periods of human life when the uterus is inactive. They begin about fifteen, when a woman begins to menstruate and from then on to fifty when she ceases they multiply rapidly; after that time we do not find new ones starting. They seem to be connected with the functional activities of the uterus, and that depends for its life on the ovary. It is probable that the ill-directed action of the fluxionary influence of the ovary is responsible for the growth of fibroid tumors, by its direction of nutrition towards the uterus, by the unnatural loss of control of the nonfunctionating breast, and of the absence of the corpus luteum of pregnancy. The woman who has a free waist, and frequent child bearing periods, and long periods of relaxation, as a rule, does not suffer from fibroid tumors.

The inhibition of the ovarian action is brought about by the influence of the female breast and by the influence of the corpus luteum. While the woman nurses her baby the internal secretion of the mammary gland stops her menstruation and stops uterine growth and activity.

So it seems a fair supposition that if we carefully and intelligently control the endocrine disturbance of the young girl and adolescent woman by proper glandular feeding (endocrine medication) by proper medicines, and by proper physical hygiene, we will secure a trophic balance that will tend to preclude the formation of fibroid tumors.

The best treatment for fibroid in young

Read before the Cass County Medical Society.

women, both prevention and curative, beginning when menorrhagia and painful bleeding first appears in the child, is mammary extract from the nursing mother sheep, and thyroid extract or pituitary body (the whole gland) one or the other as indicated.

Again quoting from my paper of 1919:

Here let us go back to the first part of our story in which we talked about the ovarian influence. Let us remember that the mammary gland has to do with the cessation of function of the ovaries, and consequently stops the fluxionary action of the ovary on the uterus. Let us give this woman, then, from 10 to 15 or 16 grains of mammary extract four times a day. Under its influence you will see most remarkable changes in the hemorrhage of fibroid. You will see it get better beyond anything that ergot and hydrastus can do for you. But the mammary extract must be reliable and fresh and I leave it to you to find from your manufacturer these products. They are difficult to obtain.

The treatment of fibroid tumors by mammary extract and by thyroid is not new. The use of thyroid extract rests on no firmer basis than the fact that the ovarian activity is called into play by the thyroid. Consequently, in any case where ovarian activity is needed, or where ovarian inhibition is desired, the products of the thyroid are occasionally advantageous. The literature is full of cases in which fleshy women having fibroids were given thyroid extract to reduce their obesity and the fibroids disappeared.

The application of mammary extract to the treatment of fibroids was written on by Dr. Robert Bell of Glasgow, Scotland, before the British Gynecological Association in 1896. A paper followed by John B. Shobar of Philadelphia, in 1898; by J. G. Clark of Philadelphia, in 1899; by H. W. Crouse, in 1902. It was taken up then by men across the ocean favorably commenting on the action of this substance in the reduction of the size; and the symptomatology of growing fibroids in young women. None of them pretend to cure fibroids that have reached great size. None of them pretend to have much of any influence on fibroids that have pedicles and have been driven out of the muscular tissue into the peritoneum. None of them pretend that the remedy is a cure, but all of them use it for the hemorrhages of fibroids and to produce a cessation in their size.

It may be mentioned by the way that the control of uterine hemorrhage is not restricted to fibroids; that the administration of mammary extract has a beneficial effect on the excessive flow accompanying many of the inflammatory conditions of the uterus. Why it has not become more popular is not hard to understand. The excessive strides of surgery, as we surgeons have perfected our technic in hysterectomy, has given us an appetite for hysterectomies. We usually consider nothing else. The presence of a fibroid justifies a hysterectomy, and every hospital has in its laboratory many specimens every year of uteri from 3 to 4 inches long containing a fibroid tumor near its fundes, as large as a marble, removed by hysterectomy when the fibroid was discovered; a totally useless destruction of the woman's genital apparatus. A proper application of the principles laid down in this paper, would have resulted in the saving of the woman's uterus and in the retention of her child-bearing possibilities.

Those of us who appreciate the gravity of our responsibility to womankind welcome the word that radiation (radium or X-ray therapy) will relieve and banish fibroids. But there are many restrictions to its availability; non-pedunculated tumor; not for cervical fibroids; not in young women; not usually in women under forty not in pressure cases. Yet in many cases it can be of the very greatest service. In the bleeding cases where the uterus and tumor are one; in the woman of forty who is delicate; where we have tried endocrine treatment 30 to 45 grains of mammary extract with proper reinforcement and hygiene, and need a little more help. In all of these conditions X-ray or radium will be of the greatest help. When using it or recommending it we must warn our patients that the ovaries will be killed and sexual old age will be precipitated upon them with a yet young body. This is sometimes a tragedy; sometimes a blessing; sometimes a negligible factor. We may treat by radiation certain well defined classes of cases. This radiation may be by radium or X-ray. The specialists in this work must decide. Having sent patients to be treated by each method I must say that judging by results I prefer X-ray. Perhaps it is because of faulty technique but I have seen pelvic pain, violent artificial menopause, bladder tenesmus amounting to torture, rectal atrophy and torpor in very annoying degree, happen from radium application. It stops the bleeding if the cause is fibroid diffused about in the uterine body, and if there is no tubal complication and if the tumor is not very large, say nearly to the umbilicus, and if not malignant, and if not involving the cervix and bladder area. With these five or six "ifs" out of the way quite a proportion of all cases seen are subject for radium if,—again an "if" on the other side,—if they are bleeding cases. There are only two reasons for any treatment beyond endocrine treatment. Pressure pain and hem-

rrhage, and radiation is useful to my mind nly in the hemorrhage ones. Surgical operaon is indicated in the remainder. We use urgery

(1) In very large fibroids.

(2) In fibroids apart from the uterus, pe-

(3) In fibroids with complications. unculated ones.

(4) In fibroids involving the cervix or ladder.

(5) In pressure cases.

(6) In fibroids complicating pregnancy.

Some years ago Crossen of St. Louis colected 3,561 cases of carefully reported fibroid umor cases and considered the complications hat if left alone without surgical operation night produce death. There were

Cancer	501
Diseases of ovaries	377
Diseases of tubes and broad ligaments	303
Total	1,181 or 33%

These complications demand operative procedure except in some of the cases of ovarian and tubal complications. When operation is decided upon as necessary we should, if possible, do myomectomy and not hysterectomy.

Again quoting from my paper of 1919:

Let us now sharply differentiate the different operative procedures necessary to a fibroid tumor when we have decided that palliative reatmnet is no longer indicated. We will first ascertain the location of the fibroid, if it be in the fundus, or if it be in the cervix, or if it be in the broad ligament. We will next examine the condition of the cervix, and the condition of the uterine cavity. If the fibroid lies up in the fundus there is no occasion to remove the uterus even though the fibroid be multiple. Through one, or two, or three incisions the tumors should be carefully shelled from their bed, the hemorrhage checked, and the wound sutured. This is the operation of myomectomy, and is the operation of choice. Endless numbers of cases could be quoted showing the removal of tumor by myomectomy leaving the woman in a child-bearing condition in which not only no bad results have followed, but in which such excellent results have followed as to convert any woman to the value of myomectomy.

There is no doubt but what the death rate is slightly higher in myomectomy in the hands of a surgeon who is at all inclined to be rapid in his work, or careless in his technic. The difference, however, is slight. There is also no doubt of the fact that there are a larger number of cases of thrombosis of the ovarian veins and thrombosis of the veins of the leg after extensive myomectomy is done than after hysterectomy. From the surgeon's standpoint a complete panhysterectomy or possibly a supravaginal hysterectomy is the easiest thing in the world to do, and obtains the quickest results for the patient. It is the easiest thing for the patient to recover from, but it is bitterly and severely the worst thing that can befall a woman herself. The doctor is through with his successful work, and has his successful result tabulated in the course of three weeks. The woman drags out her existence without any genital apparatus whatever, for twenty to thirty to forty years. The balance in favor of the doctor and against the woman is too large. Wherever possible the functionating uterus should be left, and the slight additional chances which the woman is compelled to take should be offset by the dainty, patient skill of a careful operator who does the myomectomy properly.

Myomectomy is not indicated in tumors that involve the cervix, or grow under the bladder; usually is not indicated in tumors that extensively split up the broad ligaments. In such cases hysterectomy is usually required. This hysterectomy should be supravaginal when the cervix and tissues around the cervix and the uterine cavity are in normal condition. However, if the cervix has been severely lacerated or there has recently been infection of the uterine cavity, a panhysterectomy should be done. These lines therefore should be sharply followed:

1. A myomectomy where the tumors are in the fundus.

2. A supravaginal hysterectomy where the age of the patient or the condition of the uterus does not warrant a possibility of child-bearing.

3. A panhysterectomy where the involvement of the cervical tissue by tumor growth, or its laceration, or its severe infection, endangers the life of the patient, if it is left.

I hope I have succeeded in making sharp and clear the lines along which no treatment at all shall be given to a fibroma, along which medical and pallative treatment shall be given, and lines along which surgical treatment shall be given. If these lines are honestly followed, I am sure that a very large majority of the fibroids will never be operated on, and the women who carry them will be as happy and as well-to-do, and as safe from death as those who do not carry them.

¶ The reason cults and the antis cannot succeed ultimately is because there is no diagnosis, no chart and compass to sail by, no aim, only the general supposition and cosmic urge of the patient, which is very often a mistaken diagnosis.

QUARTZ LAMP THERAPY

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I.

IT would be difficult indeed to confine to a few pages a mention of the indication and uses for the Quartz lamp. What it is desired to present is simply a clinical catalog which has been compiled from experience gained:

1. By observing competent users of equipment at work in their offices, dispensaries and hospitals.
2. By maintaining an intimate correspondence with distinguished clinicians who are utilizing Ultra Violt energy with obvious success.
3. By studying the literature that has appeared in Italy, France, England, Denmark and Germany.
4. By studying American literature.

From this extensive supply of valuable information certain reiterations stand out with regularity; and these may therefore be called clinical facts. Now, just a word as to facts. Many physicians conceive "fact" as something that is definitely rigid. This is only relatively true—although a fact is usually something more tangible than the surrounding mass of uncertainty. Nevertheless, a fact is, after all, an elusive and unsubstantial thing. It cannot be trusted too much, nor too little. Much that passes for fact is merely "near-fact," or guesswork; though this by no means detracts from its value. It is an absurd notion that only 100 per cent correct data is useful, or safe. In all efforts, even in scientific work, approximations and averages are of great value. The only important thing, then, is to differentiate, clear-mindedly, between that which is of a high degree of accuracy and that which is a sheer and oftentimes prejudiced guess. So that the material that follows has been selected with a view to affording a practical clinical summary, from which there has been eliminated:

1. Any statement that in the original source gives only a partial picture of the situation.
2. Anything based only upon opinion.
3. Anything embellished by imagined details.
4. Anything that has not been amply verified and double-checked.

II.

Skin Conditions

Acne.—In this condition many deem it advisable to produce a pronounced erythema equivalent to a regenerative reaction. When the skin peels off it is generally the case that the acne is found to be greatly improved.

In addition to regional actiontherapy obstinate cases should at the same time receive a general or systemic irradiation for the bodily uplift that is thereby produced.

Baldness.—In those cases when the scalp shows a definitely existing lanugo actinotherapy is usually fraught with good results. The applications should be sufficiently intense to produce a regenerative erythema, and should be made two or three times a week and continued for several months.

Chancre soft.—Focalization of the Water Cooled Ultra Violet energy by means of suitable quartz applicators and tubular metal applicators are generally efficient in the treatment of soft chancre.

Epitheliomata.—Very small epitheliomata treated at the earliest stages, may often be successfully controlled. It seems to be the opinion of many that X-rays are a much more desirable therapeutic agent.

Erysipelas.—If the inflamed area and the unattacked skin for one inch around the inflamed area be rayed with the Water Cooled Lamp just short of the point of blistering, it is possible to control, usually in one treatment, even the most aggravated form of St. Anthony's fire.

Furunculosis.—Furunculosis is invariably an expression of focal and general lowering of immunologic resistance, so that the actinotherapeutic treatment must be directed focally and generally. For the focal manifestation the bactericidal Water Cooled energy is applied over the lesion using a tubular applicator of the necessary diameter to enclose the involved area. For the general treatment, the biologic Air Cooled lamp is displayed over the front and back in the usual way.

Gangrene.—Many agree that gangrene is best controlled by actinotherapy. This applies especially to the gangrene that accompanies diabetes. As soon as there is the slightest symptom of disturbed circulation in the extremities, the Air Cooled lamp is used to produce regenerative erythemas. Blistering should not be sought. Should the gangrene area disintegrate and become infected, then the bactericidal Water Cooled lamp is used.

Lupus.—The vulgar variety calls for the abiotic action of the Water Cooled lamp. This is obtained by attaching quartz lenses of adequate size to the Water Cooled lamp and pressing firmly against the lesion to the point of blistering. The results seem to be better if the lesions are first swathed in hydrogen peroxide.

Lupus erythematosus is not always successfully treated. Some believe that X-rays and Ultra Violet are occasionally of great benefit, though neither is at all times entirely reliable. Although unreliable, Ultra Violet is, nevertheless, one of the best agents that we have at our present command for the treatment of this entity.

Nevus.—Under abiotic measures, obtained by pressing the quartz lens attached to a Water Cooled lamp against the mark, good results are generally obtained. Freund has observed that a nevus, all the parts of which were not readily accessible to treatment, was markedly improved although only certain areas received the abiotic radiation.

Scars.—It is said that hypertrophied scars following burns are benefited to a greater extent than might be anticipated through the use of Ultra Violet energy. Long continued exposure is necessary, best of the abiotic type which is furnished by the Water Cooled lamp under quartz lens compression.

Ulcers.—In all forms of chronic ulcerations the actinic rays are useful for their bactericidal and regenerative effect. Each treatment should be sufficiently intense to produce a regenerative erythema, using the Air Cooled lamp. Following the exposure a boracic acid lotion using a cloth compress is applied to the area until the congestion is relieved. As soon as granulations make their appearance then frequency and duration of the actinic exposures should be minimized so as not to destroy the newly formed delicate tissues. If the ulcer involves the legs, walking should be reduced so that the exercise will not interfere with the proper regulation of the blood supply in the ulcer.

III.

Convalescence and Cachexias

Anemia.—Ultra Violet energy alone will not increase the number of red blood cells nor the content of iron in the blood. It serves only to "fix" such iron as is furnished to the body in an assimible form. That is to say, an anemic patient given iron in many of its usual therapeutic forms, and then treated with general bodily irradiations or biologic Ultra Violet energy, is rendered amenable for the ready assimilation of the iron and thereby overcomes the anemic condition.

The same principle applies to the fixation of calcium, phosphorus, cholesterol, and other inorganic and organic metabolites. Certain diseases render impossible the assimilation of metabolites. Ultra Violet energy establishes the assimilation of these metabolites. Therefore, the proper therapy consists in furnishing the necessary metabolites by any of the usually established drugs and diet regulation, and inducing their fixation through general radiations with Ultra Violet.

Cachexias.—By cachexia is really meant the profound sickness that accompanies any exaggerated pathology. For instance, a cancer may lead to a very severe systemic condition of the organism. So might malaria and various forms of toxemia and allied lesions.

Of course, Ultra Violet energy can never be so helpful as to eliminate the original pathology that gives rise to the cachexia. So it is assumed that the usual treatment is directed to the fundamental cause; and, in addition to this, the Ultra Violet energy is displayed systematically to improve the bodily disability occasioned by the original cause.

Chlorosis.—In this peculiar form of anemia in which iron deficiency is an important factor, proper iron therapy together with systemic irradiation of Ultra Violet energy from the Air Cooled lamp affords a rather prompt relief. It is striking to observe that chlorosis occurs in the girl at the age when endocrine activity of the female generative organs become pronounced; and it may be that the various internal secretory glands used in connection with the Ultra Violet energy are quite the proper form of treatment. This is at least empirically established from the many trials that the conjoint therapy has received in the clinic (gland extracts plus Ultra Violet).

Fevers.—Following a long continued fever, such as typhoid or any of the similar affections, the prolonged exhaustion incident to the toxemia generally occasions an anemia and malnutrition. The Air Cooled lamp is so adjusted that a narrow beam of Ultra Violet is allowed to play over the entire length of the spine. The various nerves that have their origin near the different spinal centers and that branch out so as to fall within the skin along this tract, are stimulated. In addition to this stimulation the light may be applied over the liver and over the spleen, in this fashion hastening a return to normal from the congestion that these organs generally undergo during the febrile attack. The application should be short and frequent, and a stimulative erythema applied daily.

IV.

Digestive System Disorders

Auto-intoxication.—This is certainly an indefinite and obscure term. It will be used to mean the bodily impairment that results from an absorption of poisonous products in the intestines. From this viewpoint, auto-intoxication in all of its manifestations may be considered as a light form of cachexia, and as such it lends itself to general Air Cooled lamp treatments. The original cause must be sought and corrected or removed, after which the Ultra Violet energy will do much toward re-

storing the chemical balance of the body to a very normal equilibrium.

Cirrhosis of the liver.—It is doubtful if there is any method of therapy that can surpass or even equal Ultra Violet irradation in diseases of the liver. The reaction profoundly influences the blood supply of the liver, and results in much good. It is a great service in aiding to relieve any chronic inflammation of the gall-bladder and biliary passages. It allays pain and tenseness by lessening the congestion, and thereby relieving nerve sensibility. Since the erythema diverts the blood supply from the liver to the associated skin area, it tends to lessen the portal blood circulation, and this is helpful in those cases of cirrhosis that incline to dropsy.

Constipation.—There are many who believe constipation is responsible for many chronic diseases, leading eventually to degeneration of blood vessels, nerves, glands and bodily tissues.

From the viewpoint of Ultra Violet therapy it is best to concede constipation as a cause of auto-intoxication, the actinic treatment of which we already have discussed.

Gastric Ulcers.—A regional raying of the epigastric area is usually accompanied by much clinical good. Together with a proper dietary, so-called medicinal forms of gastric ulcers can be held under excellent clinical control, and in milder cases can lend even to the establishment of a clinical cure.

Gastritis.—Sufferers from gastritis show at the same time various degrees of auto-intoxication. These features may be firmly well controlled by Ultra Violet energy as discussed under the heading auto-intoxication.

Hyperacidity.—Ultra Violet energy applied over the epigastric region usually lessens or relieves entirely the pain that generally accompanies this manifestation. It is claimed that the gastric juice removed from the stomach during .the Ultra Violet irradation shows a marked immunity in its acid content. I have observed this fact in a stomach clinic where some patients were undergoing a fractional test-meal examination for various disorders. It would be interesting to study the mechanisms involved.

V.

Nervous Disorders

Hysteria.—Actinotherapy affords a decidedly adaptable therapeutic measure in the treatment of this condition. Unless the case is an unusually severe one the relief is prompt. The Air Cooled lamp is used systematically, and particularly over such hypersensitive areas as the patient may describe. Prompt attention must be paid to diet, hygiene and rest.

Hysterical paralysis, hyperesthesias and paraesthesias, visceral neuralgia, when of hysterical origin, respond favorably to Ultra Violet radiations.

Locomotor ataxia.—Irradiation of the spinal tract and over the areas in which the so-called "lighting pains" are felt furnishes a relief of the distressing symptoms. It does not appear that the lost reflexes return; but after a reasonably protracted course of actiontherapy it is usually observed that co-ordination can be obtained to the point where the gait becomes more natural.

Melancholia.—Most usually, melancholia is attended with an obvious lowering of bodily resistence. This is much improved under general Ultra Violet irradation. In addition, the Ultra Violet treatment secures an improvement of the mental outlook that does much in these cases.

Myelitis.—There must not be any supposition that organic disorders of the spine, represented by chronic myelitis, can be medically cured through the office of Ultra Violet energy; nevertheless, irradiation of the spinal tract is certainly effective and reacts to the benefit of the physical integrity of the patient. Not infrequently a considerable degree of improvement is observed.

Neuralgia.—Neuralgia is, treated in essentially the same manner as neuritis. In chronic cases, when the pain cannot be quite overcome, it has been found that a quartz lens attached to a Water Cooled lamp and pressed as firmly as the patient's tolerance will permit over the entire course of the supersensitive nerve. furnishes generally a prompt relief. The lens should be applied to each area along the tract long enough to insure a slight blistering.

Neuritis.—Neuritis is treated as is neuralgia, which see. This nervous affection is often extremely stubborn and difficult to overcome. Usual foci of infection must be sought and obliterated. A quartz lens used with the Water Cooled lamp and pressed firmly over the entire length of the skin overlaying the sciatic nerve course; keeping the lens in firm contact at each spot long enough to produce slight blistering, will most often furnish relief such as no other measure can afford.

Spinal sclerosis.—See myelitis.

VI.

Gynecologic Entities

Amenorrhoea.—During the interval between the menses daily application of Ultra Violet energy should be made to the point of stimulative erythema over the lower thigh and lower abdomen. When the menstrual flow appears it is best to discontinue the applications.

Dysmenorrhea.—This condition is very frequently associated with conditions of malnutition, so that it is quite likely to be relieved y a general systemic application of Air ooled Ultra Violet energy. It should be used wo or three times a week over the entire ody, in addition to which it is a great advange to irradiate the lower part of the back and e lower abdomen.

...etrities.—In the chronic form the applicaon of the Air Cooled energy to the lower abmen and back and to the lower extremities nerally produced a derivative effect which ccompanied by much clinical relief of the dition.

Ovarites.—This is treated in much the same shion that a neuritis might be handled with oper hygienic measures, and under Ultra iolet therapy, chronic overities has yielded hen other measures have failed.

VII.

Summary

This brief enumeration of conditions is only partial list of indications calling for Ultra iolet energy. Of course, our knowledge for e use of the energy in these conditions is in any cases empiric, but empiricism resulting om the close observation of prominent clinims can not be considered as beneath the level the scientific worker. We may conclude saying that the solution of the mechanism reby Ultra Violet effects a clinical remedy he diseases mentioned offers an unusual ortunity for research investigation that t inevitably lead to a more advanced and ically brilliant therapeusis.

WHAT DO YOU DO WITH YOUR CHRONICS?

By BURTON W. SWAYZE, M. D.,
Allentown, Pa.

HRONIC invalids, like the poor mentioned in Scripture, seem to "be with us always," and, to copy the slogan of a y advertised beverage, "There's a Rea-

a rule the profession is amply able to e the average run of sickness occurring ir community or, to narrow it down and it personal, their own clientele, but when nes to those "here and there" cases that every effort to restore health—the ic invalid—the majority of physicians are , they are up against a high wall, they the end of their rope.

h chronic invalids either become the bane ightmare of the physician or else, like the wyer settling the estate, they provide a ant source of income and the means of buying new equipment or sending a son or daughter through college.

To most physicians a chronic invalid call is sidestepped as quickly as is a rattler, or if the chronic is successful in reaching the consulting room, or getting the doctor into the sick chamber, the latter resigns himself to the inevitable hour of listening to the long recital of troubles, giving, perforce, respectful attention even while his mind wanders to the golf course or other matters.

To a few, however, the chronic invalid is of great interest and affords an opportunity to try out some of the highly (drug salesman) lauded remedies much on the order of "try it on the dog" and if the dog survives, well and good. At least little harm can be done and, possibly some good may result.

Or, and which is more often true, in order to get rid of the patient the attending physician advises some far distant health resort, sanitarium, travel, rest cure or (Is it with malice afore thought?) refers the case to another physician or some city specialist.

We have all been through the mill, at least those of us who have been in practice long enough to acquire a crop of chronic invalids, and we each should be able to answer the question heading this paper. Frankly, just what do you do with your chronic invalids?

Do you let them continue to suffer year after year because your interest in them has waned? Are you shifting them off on some other physician or letting them get the "patent medicine" habit? Or are you really endeavoring to find "something" that will bring relief and restoration? Can anyone resist the appeal of a human stricken down from active life to spend their remaining days in misery, hopeless of recovery?

Physics teaches us that every cause has an effect, and vice versa. Applying this to our chronic invalid, there must be a cause for the effect (invalidism) which the patient shows and it is our business in the interest of the patient, community, family—to say nothing of our profession—to find the cause of the invalidism and remove it, thereby allowing nature the opportunity to restore health.

Certainly, "There's a Reason," and of course we have looked for it every place where we expected to find it. But have we looked where we don't expect to find it? Very often the unsuspected has given the secret that brings success to our treatment, turned a helpless chronic invalid into an individual whose restored health has meant years of service to the community or restored the keystone holding a family together.

Medical literature is more and more suggesting the theory that syphilis is the unrecognized marauding enemy harassing humans to a

larger extent than the profession suspects. Investigators have been seeking to determine whether this theory is an accomplished fact and the truth is gradually coming home that syphilis is a large factor in practically all diseases.

Methods of investigation differ but if these all bring the same answer then we must accept the answer as being correct; but with some investigators depending upon the usual question and answer method so generally in use in making all diagnoses, there may be an element of uncertainty in their findings.

Certainly the family history and even the physical examination of the patient or the usual laboratory tests, including the undependable Wassermann, cannot always, and in most cases do not, reveal the actual facts, hence results obtained by these methods have but a small part in forming a decision; nor has it yet become popular to await a necropsy to verify, or not, the diagnosis.

Necropsy has, however, aided greatly in determining the factor of syphilis as the instigator of many of the common and everyday diseases we treat, revealing time and again the action of this disease upon the internal and vital organs, but which disease evidenced itself as some other disease or group of symptoms suggesting some other disease.

The profession generally accepts the fact that germs of several varieties exist in the human and produce certain definite effects to which affects we usually are able to attach a name of some disease, such as typhoid, pneumonia, tuberculosis, etc.

But the danger here is that we treat the disease by name instead of destroying the germ or combination of germs, that produce the symptoms to which we have attached a disease name. We should devote more effort to treating the cause and less to treating the effects, if we are to have success.

Serums, antitoxins and a multitude of agents are at our beck and call for this purpose and to a large extent produce results, but the fact remains that even after the active action of disease has been overcome (or suppressed) by these methods and the patient is up and about again, they still are not completely cured because the germs have not been entirely eliminated, with the result we have thousands of invalids, both semi and chronic, on our hands and we do not know what to do with them.

Here is another thought. Granting that in a patient we are satisfied we have located and named the germs that produce the illness we call, say, tuberculosis, have we stopped there or have we thought to determine whether there might not be other disease germs back of the tuberculosis germs exciting these to activity; or a soil propitious to other germ growth?

With tuberculosis as an illustration, it has been proven over and over again that back the tuberculosis there is a luetic soil. That tuberculosis is grafted upon syphilis and peated experience has shown that when luetic condition has been treated and clear up, the tubercular condition also clears up; a if not an actual cure given, at least a symp matic cure results.

We are indebted to the exhaustive labor tory and clinical investigations of Dr. Albe Abrams for incontrovertible proof that syphi is the etiological factor present in practical all human diseases. So constantly do the Ele tronic Reactions of Abrams show this that resolves itself into, "No syphilis, no disease

Such a far-reaching statement is revolutio ary and did it come from any less reliable source than Dr. Abrams, there would be re for doubt. But Dr. Abrams releases nothing the profession until he has ample definite scie tific facts to back it up, and the users of t Electronic Reactions of Abrams (ERA) in t profession daily prove in their own practi that Dr. Abrams' findings are correct and d pendable.

This leads us, once more, to the chronic valid. Their very presence proves that previous or current methods of diagnosis ha failed to produce the single, or combinati cause of the disability, for had that been kno there is a remedy ready to correct the trou and, ergo, there would be no invalids.

Again, the very presence of an invalid pro that the accepted and general methods of tre ment have failed to cure, granting that underlying cause may have been discover and because of this failure at the hands of ma physicians,—well, we still have a chronic valid in practically every one hundredth hom

In the light of Dr. Abrams' investigatio later corroborated by other investigators, th syphilis is the basic cause of practically *all* d eases; that tuberculosis, carcinoma, sarcom colisepsis, insanity, diabetis mel., Bright's d ease, etc., develop upon syhpilitic soil; then can well be assumed that the failures to rest chronic invalids is due to the non-recogniti of syphilis as the etiological factor in each ca

That syphilis can be present without e dencing itself in the usually looked-for form well recognized by the profession, is proven others, as well as Dr. Abrams. Such auth ties as Lister, Sir James Barr, Cappell, Gra J. W. King and others have frequently no the chamelion-like form which syphilis sumes.

Many a chronic indigestion has been co come by anti-syhpilitic treatment. The sa can be said of the varied neuroses, Bright's ease, diabetis, rheumatism, carcinoma, sarco asthma, etc., and a long list of other disea and diseased conditions.

Users of the ERA are able to discover the real, underlying and causative factor of disease conditions even at their very beginnings and before recognizable symptoms appear, and many a chronic invalid, for instance, has been restored to health because the ERA have disclosed the secret, hidden and true cause of their disability.

It is not necessary always to examine the patient the ERA way, preferable though that may be, but physicians having chronic invalids among their clientele need only to send a few drops of the patient's blood, placed upon a small square white blotter or white filter paper, to those qualified and authorized to make the ERA examinations, following which a report is sent back giving the findings of the examination.

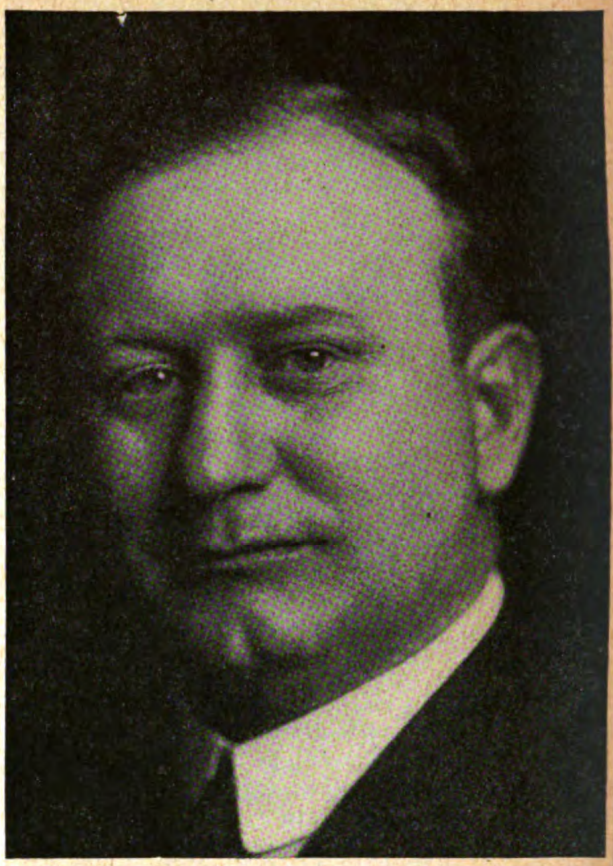
The problem of the chronic invalid can be solved in this way and their number reduced to a minimum, and the attending physician will harvest a great crop of gratitude and add laurels to his reputation, because having had the secret of the real trouble thus revealed to him he applies the remedy that brings the restoration.

The question of what to do with such patients then is simplified,—have ERA tests made of their blood in an effort to discover the unsuspected source or cause of the infirmity. Let a caution be stated just here. Just because you have read this paper suggesting the possible cause (syphilis) underlying disease, don't immediately begin an anti-syphilitic treatment without at least first having the test made to verify, or not, the syphilitic involvement; otherwise damage might be done.

This, then, is the answer to the question heading this article. The Electronic Reactions of Abrams offers a more than possible solution to the problem, a method more certain, accurate, scientific than any present method in general use. Even a Wassermann may fail to show lues, but the ERA will detect the slightest presence of disease and not only that will be able to locate the organs, tissues or parts involved and give a measurement of the quantity or potency of disease present. And all this just from a splotch of dried blood taken from the finger or ear lobe or vein of the patient placed upon white blotting or white filter paper.

Commonwealth Building.

All one's work might have been better done; but this is the sort of reflection a worker must put aside courageously if he doesn't mean every one of his conceptions to remain forever a private vision, an evanescent reverie.—Joseph Cornad.



DR. FLOYD H. SPENCER

OUR president, Dr. Floyd H. Spencer, is one of the live wires of the St. Joseph medical fraternity. He had the nerve to declare himself a surgeon shortly after graduation in 1900, when he became assistant to the late Dr. O. B. Campbell, and tenaciously adhered to his ambition until he awoke to find the dream a reality. He took post-graduate work in Chicago in 1903, in Europe, at Vienna, in 1914.

He is an ex-president of Buchanan County Medical Society and St. Joseph Academy of Surgery, and now presides over the St. Joseph Surgical Society. He is a member of the American College of Surgeons. He served in the late war in Base Hospital No. 1, Fort Sam Houston, Texas. His specialty beyond surgery is arranging for medical meetings; he has become sort of a chronic chairman of arrangements and always makes good.

The increasing elevation of the wave of prosperity upon which the Doctor has been riding of late years—noticeably since his marriage—is admittedly due to the charms of Mrs. Spencer, who is a real helpmate, a former graduate nurse, and a real chum of a wife.

The Missouri Valley Medical Society congratulates itself on the selection of the presiding officer for next year at Omaha. J. M. B.

THE Southern Medical Association will hold its sixteenth annual meeting in its birth city—Chattanooga, Tennessee, "The Dynamo of Dixie," Monday, Tuesday, Wednesday and Thursday, November 13-16, 1922. Dr. Seale Harris, Birmingham, Alabama, President.

THIS meeting will be made up of eighteen sections and conjoint meetings as follows: Medicine, Pediatrics, Neurology and Psychiatry, Southern Gastro-Enterological Association, Radiology, Dermatology, Surgery, Southern States Association of Railway Surgeons, Urology, Orthopedic Surgery, Obstetrics, Eye, Ear, Nose and Throat, Public Health, National Malaria Committee, Conference of Malaria Field Workers, Southern Hospital Association, Conference on Medical Education and Southern Association of Anesthetists. In these meetings every phase of medicine and surgery will be treated. The programs are unusually fine this year.

DR. E. D. WISE, City Health Officer of Chattanooga, will deliver the Address of Welcome, which will be responded to in behalf of the Southern Medical Association by Dr. W. S. Leathers, State Health Officer of Mississippi, Jackson, Mississippi. Dr. C. C. Bass, Dean of Tulane Medical College, New Orleans, will deliver the Oration on Medicine; Dr. Hubert A. Royster, Raleigh, North Carolina, the Oration on Surgery, and Dr. S. W. Welch, State Health Officer of Alabama, Montgomery, Alabama, the Oration on Public Health.

OF unusual interest will be the joint dinner session of the Section on Surgery and the Section on Radiology Tuesday night. Dr. George W. Crile, Cleveland, Ohio, will represent the Section on Surgery, and Dr. George W. Holmes, Massachusetts General Hospital, Boston, the Section on Radiology. All physicians and surgeons are cordially invited to this dinner session.

ENTERTAINMENTS include a President's reception with dance on Tuesday night and a dance and get-together meeting on Wednesday night. On Tuesday and Wednesday elaborate entertainments have been provided for the wives of the physicians, including sight-seeing trips over the historic points of interest, luncheon at Signal Mountain Inn, theater parties, etc. The Chattanooga Committee is anxious for a large attendance of ladies. For those who golf, tournaments are being arranged. Chattanooga has several wonderful golf courses.

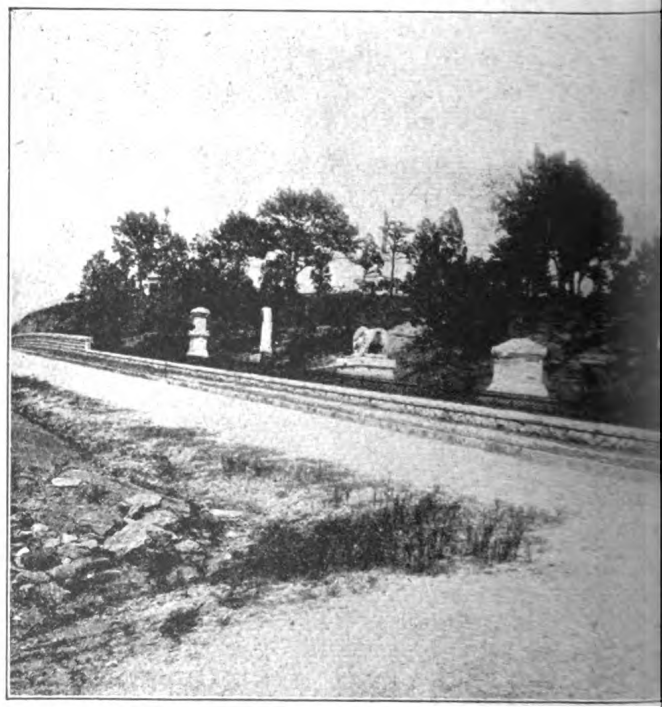
CHATTANOOGA MEETI
MEDICAL A

SCIENTIFIC exhibits bid fair to be of unusual interest. In the health exhibits malaria control work will be featured. In connection with the scientific exhibits there is expected to be a moving picture theater at which scientific films will be featured all during the days of the meeting.

CHATTANOOGA excels in beautiful scenery and in points of historic interest. Lookout Mountain, Signal Mountain, Missionary Ridge, and the historic battle fields alone are worth a trip to Chattanooga. The Hotel Committee promises



View Taken From Brow of Signal M
Williams Island, With C



Orchard Knob, Chattanooga, as It Appears Today. Th
of Missio

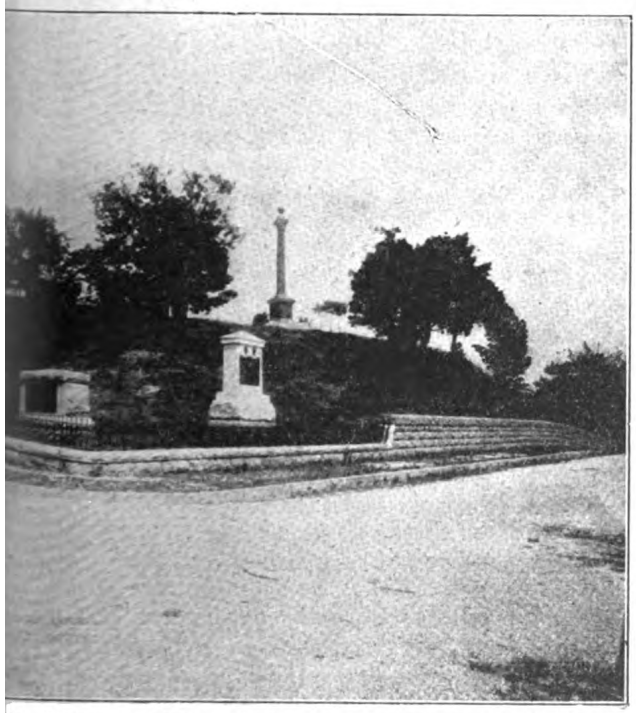
G OF THE SOUTHERN SOCIATION

comfortable accommodations for all who attend.

SPECIAL reduced railroad rates have been granted by all railroads on the certificate plan. The members of the Association will receive without applying for them a certificate entitling them to reduced rates. Any doctor who is a member of his state and county medical society, although not a member of the Southern Medical Association, who desires to attend this meeting can have the benefit of these reduced rates by requesting a certificate from the Association office.



tain, Showing Tennessee River and nooga in the Distance



Was General Grant's Headquarters During the Battle Ridge.

WELCOME TO CHATTANOOGA

By H. W. LANGLEY,
Secretary Chamber of Commerce.

Who has not heard of Lookout Mountain, the scene of the "Battle above the Clouds?"

Doctors who attend the meeting of the Southern Medical Association at Chattanooga will not only have the opportunity of seeing the magnificent view from the point of historic old "Lookout," but they will be in easy access to the famous battle fields of Chickamauga, Missionary Ridge and other points made sacred to every liberty loving American.

Chattanooga has a constant stream of tourists the year round as all tourists passing either from the North or South pass through this historic city.

Some of her visitors have referred to Chattanooga as the "Friendly City" and her citizens are proud to be thus known.

People attending a convention usually have some spare moments for pleasure. Here is where Chattanooga presents the strongest inducements to visitors. If you want to enjoy the mountain air you have the privilege of stopping at a modern hotel situated on top of Signal Mountain, 2,000 feet above sea level. At this hotel you find all conveniences of a down town hotel, but also golf, tennis, horseback riding, swimming, both outdoor and indoor. This hotel is within a forty-five-minute ride of the down town section by either auto over good roads or by trolley.

It would be impossible to describe the magnificent scenery about Chattanooga; suffice it to say that World travellers have pronounced the views as seen from Lookout and Signal Mountains as not surpassed anywhere.

The Doctors have arranged for a golf tournament at the Golf and Country Club, which is within a fifteen-minute ride of the city over good roads or by trolley.

Being located between the cold North and the hotter climates of the South, it is an ideal city in which to visit or live, the average year round temperature being 60 degrees, this taken in connection with the many diversified lines made in her factories giving men an opportunity to follow any avocation, her fine school system, her churches and her close proximity to as fine scenery and natural advantages as can be found on the American Continent, make Chattanooga truly an entrancing spot to visit or in which to live.

Not only her doctors, but all her citizens are anticipating the visit of the members of the Southern Medical Association, who will find a warm, hospitable welcome awaiting them.

Come and look us over.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald
and Electro-Therapist
Incorporating the
Kansas City Medical Index-Lancet

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All communications should be addressed to the Managing Editor.

...l. LXI NOVEMBER 15, 1922 No. 11

The Editors' Forum

...ARLY RECOGNITION OF CANCER

...HE Missouri Valley Medical Society gave a symposium on "The Early Recognition of Cancer," at its meeting at St. Joseph, ...tember 22nd. It is an encouraging sign ...ere surgeon, physician, gynecologist and ...iologist unite in a movement for the early ...gnosis of cancer. Education of the public ...econdary to education of the doctor in this ...ard. The public will suffer so long as ...sicians "treat" lumps, tumors, or ulcera... is until their malignant nature is flaunted ...he world. It is not very important that ...cer is possibly slightly increasing. It is ...very important that X-ray and radium cure ...w superficial growths and favorably in... nces all others. The important thing is ... early removal by an adequate surgical ...edure supplemented by radiology before ... after operation gives us the only authentic ...of cured cases in large numbers living and ... five years after treatment. Two factors ...d out; the operation must be early and it ...t be adequate to the condition.

...ow shall we get the news to the people? ...l we make public drives? Shall we use ...ing picture screens? Shall we carry the ...er into the school? It seems to us that ...is as in all things where exploitation, mis...erstanding, misconception and ignorance ...to be considered, we should be quite cau... . There is nothing complicated or exten... to show so why use the screen? There is ...ntricate matter for the public to learn so why invade the school and college? The points to be carried home are

(1) That early surgical treatment prevents and cures cancer.

(2) That unusual lumps or tumors, ulcers that do not heal quickly, and unusual discharges of blood should be submitted to a doctor at once.

This brings us to the field to be tilled and the tiller thereof. The doctor should in every meeting where people are gathered together for health topic discussion, allude briefly and pointedly to these essential points, and there we may well stop. This should be backed up by popular magazine articles, attractively and briefly written so that those who desire may read. Perhaps too loud and indiscriminating proclamation of cancer and other disease matters will do more harm than good. Let the public alone when it is playing; speak in brief and no uncertain tones when it is in a place, a time and a mood to listen. Along such paths lies success in popular education of health matters.

HERMAN E. PEARSE.

National Cancer Week, November 12-18th

IN view of the remarkable success of National Cancer Week last year, the American Society for the Control of Cancer decided to make this an annual event and has set aside the week of November 12-18th for this purpose. The subject of cancer has never received the attention it deserved in the past and it is a matter of gratification to see so active a campaign started against this scourge.

The latest figures of the 1920 census show that cancer causes more deaths in persons over 30 years of age than does tuberculosis. It also shows that there is an actual increase in the cancer death rate, the present figures being 83.4 per 100,000. Each year approximately 100,000 persons lose their lives in the United States from cancer. In the article published in this issue of our journal by Dr. Fred J. Taussig it is shown that one-quarter of this number, that is 25,000 lives, could be saved every year merely by prompt recognition and treatment of the disease without any improvements in the methods of treatment employed.

While the research laboratories are busy with their investigations of the cause of cancer and its treatment, it is up to the medical profession to see to it that these 25,000 lives are not needlessly wasted every year.

Some criticisms have been heard that this campaign of education produces a cancer phobia and there is no doubt that a reaction of worry does pervade after such a campaign.

National Cancer Week, Nov. 12 to 18

FEW of us realize the importance of continued bombardment in every possible and suitable way. We must remember that results will not be immediately apparent and we are not to be discouraged if statistics do not show an immediate decrease in cancer mortality. It is an undoubted fact that during and following Cancer Week, thousands of lives in this country and Canada were saved as a result of the educational campaign. This cannot, of course, be immediately apparent—two to five years must certainly elapse before the result of this work is seen. I believe that it is quite within reason to expect that suitable educational work will diminish cancer mortality and suffering by one-third at the end of ten years. In this connection each state may well constitute itself an area in which intensive work is to be done."—Charles A. Powers, M.D., President American Society for the Control of Cancer.

ich worry, however, is often a great prenter of trouble. The man reading of a seris automobile accident is more apt to drive owly and carefully himself; or to give a edical example, when he hears that Mr. A aited until his appendix ruptured, or that r. B waited until his hernia caused a strangution of the bowels, he is more apt to pay atntion to the prompt treatment of these conitions. Long before the cancer educational mpaign, physicians have been tormented by e perpetual worrier. This type of man or oman will react badly as a result of a cancer mpaign and run to the doctor with symptms of the disease. The fact that such peoe will for a time be worrying about cancer stead of some other disease is no reason for andoning the whole campaign of education. fter last year's National Cancer Week camign physicians all over the country reported increase in the number of early cases comg for treatment. This alone justifies our rnest support of the Society's efforts to conol cancer.

I trust every physician who reads this will em it his duty, during National Cancer eek, to assist those agenies doing cancer ducational work in his community and to eak on the subject to his own clientele of tients; and, above all, will make a solemn w never to be too hurried to make a careful ysical examination of his patients and will ep constantly in mind the possibility of a alignant condition, in order that the diagsis may be made at the earliest possible oment.

Get busy in your own community.

THE RESPONSIBILITIES OF PHYSICIANS IN THE CAMPAIGN AGAINST CANCER

WE all realize that the big thing for the cancer patient is an early recognition of the pre-cancerous lesion or the suspicious lesion. If we wait until the diagnosis is definite and certain, we have frequently waited too long. Therefore, we must increase our ability to recognize the early suspicious lesions. Don't put off your patient with the suggestion that they "wait and see what happens." The strategic time to treat cancer is before it is definitely established.

"Hit the enemy before he becomes entrenched."

Don't be so blooming hopeless about cancer. Tuberculosis was rather hopeless until we educated the people to early medical examinations and educated ourselves to earlier recognition of symptoms.

Cheer up. Therapeutic results are better than ever before. We are learning how to totally eradicate the early lesion and we are obtaining longer recessions of the well-developed cancers.

Preach, agitate, educate. We cannot be content with the present results of advanced cases, but we can help to prevent many cases if we will teach people to seek early medical advice upon all suspicious lesions. People hide their lesions from their physicians too long. Bring the people to a realization that early and frequent examinations of suspicious lesions is the big essential.

Educate the people and don't neglect to educate yourself in the early symptoms.

The Holy of Holies

The Doctor's Office and Psychology

"Your skill will have but little sale anywhere unless you persevere and make the public of that section know that you have it."—Cathell.

The old saying that "The average physician never gets bread 'til he has no teeth to eat it" must be refuted by the next generation. The labor is worthy of its hire.

"For the noblest medical man that lives there still remains a continuous conflict."—Cathell.

Your office should be the sanctum of an earnest, working, scientific, medical man."—Cathell. It should be neither a museum nor a display room—rather, the work shop and the private office. Let your office proclaim the occupant and owner.

It is your duty, as well as to your interest, to display no political emblems or religious emblems, mottoes, about your office, because "these relate to your personal sentiments."

The writer once entered a large wholesale office. The manager, who was also a dog fancier, was turning the leaves of a dog breeders' journal. He sighed and said that he was telling it all goodbye; that his firm had asked him to give it up! The man fell fifty per cent in my estimation, and subsequent association never regained that. It is well for a doctor to have a hobby, but it should be unknown to his office and to his patients.

In your office you are to be impersonal, non-sectarian, neutral. "Therefore, keep your heart and office open to all parties, classes and creeds." Yet, withal, you have convictions, deep rooted opinions, ideas and principles which are all your own, and to which you are entitled.

As your face is the window of your soul so your office is the window of your professional life. It proclaims your character. The system, the order, the arrangement, should radiate you, your personality. Your office should throb with your sincerity and your worth.

With such ideals, your office, like a sacred shrine, would radiate an atmosphere that would make it almost an insult for you to be approached for a liquor prescription or a request for a criminal operation.

Having established and faithfully kept your office hours, steer your clientele into the same. Avoid having your rest at home broken in upon by some old friends and patients who thought it more convenient and dropped in to see if you were at home. Your home life is your own, your office life is your patients'. In like manner if you are at the office for some special work and study, do not be interrupted by out-of-hour and "drop-in" patients, or by special time-killing friends. By tact and alert wits you can accomplish this and not offend nor neglect a patient.

This general system is more easily carried out if there is volume of office work. This may be augmented by charity cases and by having personal reports instead of phone reports, by short office hours, etc., etc.

I think there is no doubt about it, that a patient who has to wait his turn, who has some difficulty in seeing you, will the more appreciate your services. This is especially true of the charity case.

Be especially cautious of having your office favorites and pets who break in out of their turn, and interrupt your system, and demoralize your policy; offending, maybe, one of your best charity patients who just was about to send you another very fine pay patient!

Make occasion to have the best men of your acquaintance visit your office occasionally, either by especial appointment or by telephone call, or by chance meeting them on the street; take them in promptly and perhaps especially. The same is true of your ethical medical neighbors. Get them often into your office!

When doctors call at your office see them at once in advance of all patients. If you are attending a patient try to not keep the doctor waiting.

There is also to consider and manage a class who may be good pay, but whom you do not care to have seen too often in your office.

One of the most difficult office problems is the hurry call received while you have patients waiting their turn. One expedient is to arrange and send temporarily some young doctor whom you delight to honor (also on other occasions), after which you may soon also call, thus retaining the case. Do not forget to slip the young doctor his fee for the call.

—*"Harking Back."*

THE PENDULUM SWINGS

Yesterday was the day of the pathologist, more especially of the bacteriologist. The day before yesterday witnessed the triumphal progress of Surgery. Physiology and Medicine, all wrung in the weathers and quite chap-fallen contented themselves perforce with the crumbs which fell from the rich microbic tables of these others. But the whirligig of Time brings on his revenges. Today and tomorrow, and the day after, are foreordained to the physiologist, the physician and the therapist.—Leonard Williams.

Society Scintillations

)T SPRINGS MEETING, MEDICAL ASSOCIATION OF THE SOUTHWEST

(By Wire)

Hot Springs, Ark., Oct. 18, 1922.—Genuine South- hospitality, the Hot Springs variety, characterized meeting of the Southwest Association, which sed its session here today. The small attendance, account of inadequate railroad service, evidently l no effect upon the enthusiasm of those in the ivention. The outstanding feature of the meeting s the address and clinics by Dr. Henry A. Cotton, dical director of the New Jersey State Hospital Trenton, his subject being "The Relation of ronic Infection to Mental Diseases."

Dr. E. House of Ferris Texas, read a paper which oked intense interest on the use of Scopolamine esthesia, a "twilight sleep," in which the mind of criminal may be made receptive to questions, and ich the doctor claims, in tests already made, never ls to bring a truthful response. Dr. House is enavoring to secure permission to further test his ory on the inmates of the government prison at avenworth.

One of the pleasing incidents of the convention was e election to the presidency of Dr. Fred H. Clark, o for seventeen years has served as secretary-treaser and editor of the Journal. Dr. Clark is now in blic health service. Dr. E. H. Skinner of Kansas ty was elected secretary-treasurer. The state vicesidents were elected as follows: For Arkansas, r. J. A. Buckley of Fort Smith; for Texas, Dr. E. House of Ferris; for Kansas, Dr. W. H. Addingn of Altoona; for Missouri, Dr. Clinton K. Smith Kansas City.

It was decided to hold the next annual meeting in ansas City during the Priest of Pallas week in Octber. A radical change is contemplated in the proam. Instead of the usual contributions in the nare of papers, the entire week will be devoted to agnostic clinics given by men of international reptation, representing the various specialties. Further etails later.

MOUNTAIN VALLEY SPRINGS

One of the pleasant features of our trip to Hot prings was a two days' stay at the Mountain Valley prings Hotel, located in the Ozark Mountains, about n hour's ride from the city. Here we had the leasure of meeting the president of the company, Ir. August Schlafly, and his estimable wife, who are pending a few weeks at the resort. Mr. J. H. Hornstein of Indianapolis, who is at the head of the sales epartment, and Mrs. Hornstein were also spending heir vacation in the mountains. The Mountain Valey water flowing from the springs has been prounced by the chemists to be radio-active. And his fact has a direct bearing upon the absolute urity of the water, it being well known that all prings of this character are absolutely free from acterial poison. To all those who have used Mountain Valley water we would say, come to the fountain head and see the water as it gushes from the nountains. It will be an inspiration to spend a vaation at this hotel and enjoy the beautiful days and he cool, refreshing nights. The service and cuisine f the hotel are above criticism.

When you visit Chattanooga, make it a real vacation by spending a week or two at the beautiful Signal Mountain Inn, "the hotel in the clouds."

Correspondence

TREATMENT OF CANCER

Omaha, Neb., Oct. 10, 1922.

Editor Medical Herald,
St. Joseph, Mo.

Dear Doctor Fassett:

On page 301 of the October Herald I find some statements in regard to cancer that are so unreasonable that I hasten to answer them, and I hope my answer may serve to add some necessary and useful information to the education of the gentleman giving voice to the false statements and help to combat the harm that may have resulted from their publication.

The statement that neither X-ray or radium have any influence in uterine cancer is absolutely disproven by experience as these agents are the only things in the realm of therapeutics that have proven of any value in this disease. In my own work covering a period of ten years and hundreds of cases of uterine cancer our cures of uncomplicated, early uterine cancer without metastasis has been over eighty per cent. In late uterine cancer life has been prolonged and all unpleasant symptoms (pain, bleeding, discharge, bad odor, etc.) have been controlled in practically every case. We have several cases turned over to us as inoperable that are healthy and well five years after their treatment, no surgery having been done. The position of radium and x-ray in regard to cancer is just as well established and proven as is the position of quinine in malaria or salvarsan in syphilis and the only person who rejects such evidence is the person who does not want to know the truth.

The other statement is to the effect that in early cancer radium may cause metastasis. As a matter of fact this does not happen and the reason the doctor thinks it may happen is plainly seen in his next sentence where he says, "the difference between benign and malignant neoplasms is best made by frozen sections freshly obtained." If he follows this method; the cutting out of a piece for the microscope, he will have metastasis in his early cancer cases as well as in his late cases, as this unsurgical and unscientific procedure always scatters the disease through the adjoining lymph glands. The metastasis that he gets in his early cases are due to the biopsy, not to the radium.

Respectfully yours,
D. T. QUIGLEY.

GETTING SENSITIVE ALONG THE SPINE

Suit is being brought against Dr. W. A. Tansey, Newark, N. J., by the Chiropractors for calling them "quacks" and "fakirs," publicly.

Well, well!

Here is a chance for adjustment to suit the county court.

It will require a good spine to stand the impingement of this subluxation of the Chiropractic nerve, passing through the sympathetic ganglion and thereby inhibiting public sentiment at the third cervicle, 'n'ev'rything.

You know what I mean.

YESTERDAY

All to ourselves, we think of you;
Think of the things we used to do;
Think of the things we used to say;
Think of each happy yesterday.
Sometimes we sigh; sometimes we smile;
But we keep each olden, golden while
On memory's golden file.

—Sallie Edith Roby.

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

Essentials of Laboratory Diagnosis. Designed for students and practitioners by Frances Ashley Faught, M.D., containing eleven full page plates and seventy-eight text engravings. Seventh revised and enlarged edition. 523 pages. 1921. Price, $4.50 net. F. A. Davis Company, publishers, Philadelphia, Pa.

The clinical laboratory has been taking a forward place of late years as a specialty of medicine. This present volume is a very successful attempt to put the laboratory on a practical working basis as an aid to clinical medicine and the busy practitioner. The newer and up-to-date methods have been incorporated in this volume. Twenty-four pages are devoted to blood pressure.

Dreams and the Unconscious: An Introduction to the Study of Psycho-Analysis—By C. W. Valentine, M. A. Cantals, D. Phil. (St. Andrews). Prof. of Education in the University of Birmingham. The Macmillan Company, 1922, New York.

This little condensed volume has grown from lectures by Prof. Valentine before the Socratic Society at Birmingham University and the Educational Society of the University of Leeds. The author's aim is to clarify the "new psychology" by indicating what "is established and what is still speculative theory, or hasty generalization;" to assemble "the main doctrines into line with orthodox psychology;" to simplify the understanding of the "new psychology for the student, that the subject matter be "judged upon evidence, not upon misconceptions." Credit is given to the teachings of Freud and Jung and a group of lesser American psychologists, termed "Neo-Freudians," some medical, some non-medical men, "rejecting some of Freud's doctrines, yet greatly influenced by certain of his ideas." The folly of psycho-analysis in the hands of quacks is pointed out as dangerous; the physician trained in medicine and psychology, not the amateur, is the proper administrator. To those interested in psycho-analysis the clearness and moderation of statements, the sane reasoning and logic of this little book, will appeal to the reader's understanding.

Doctors—Entre Nous—By James Bayard Clark, 66 pages, New York. Medical Times, 1922.

In this little book are three stories. The striking feature of these stories is the combination of quiet whimsical humor and peculiar force. One is carried on a high tide of amusement to a sudden and surprising termination.

With a keen blade indeed the author pierces the shining armor of the profession and lays bare to all an easy view of some of its usually obscure faults and weaknesses.

This book should be read by every medical man where the English language is understood. We doubt if the medical profession would care to have it read too generally by the laity.

Such wit and vigor has never before been applied at once to the medical profession.

The publication has just made its appearance at the medical book depots and can be had from the publishers. The Medical Times, 93 Nassau Street, postpaid on receipt of $1.00.

"SUPERIOR SURGICAL SERVICE"

ONE DOZEN OF OUR

SURGEON'S PURE GUM GLOVES

will convince you that our quality as well as our service is superior

Price, per dozen, $4.00

ERSCHELL DAVIS COMPANY

211 Gloyd Building 921 Walnut Street

KANSAS CITY, MO.

Medical Melange

ROBERT P. WARING. M. D.

Dr. Robert Payne Waring, 73 years old, died at his me in Kansas City. He had been ill for twelve ars.

Dr. Waring was health commissioner of Kansas ty during several administrations. He was the first ysician to introduce the use of anti-toxin in Kan- City. He also organized and introduced the sys- m of house to house collection of garbage.

Dr. Waring was born in Essex County, Virginia, d attended medical schools at Richmond, Va., and Louis. While completing his education he prac- ed medicine a few years at Potosi, Mo. He had ed in Kansas City 45 years and was a member of Central Presbyterian church.

Dr. Waring served in the Civil War, having run ay from his home as a boy and enlisted as a dis- tch bearer in the Confederate army.

He is survived by his wife, Mrs. Julia Van Alen aring, three daughters, Miss Minnie Campbell War- and Miss Celia Waring of the home address and s. Fred A. Cain, 3441 Bellefontaine avenue; three s, Robert G. Waring and William H. Waring of e home address and George P. Waring 4128 Oak reet; and three sisters, Mrs. J. B. McLendon, 3440 ollege aveenue, Mrs. M. E. Yegan and Miss Pris- lla Waring, both of Dunnsville, Iowa.

Dr. Lloyd J. **Thompson** announces the opening of ices in Suite 510 Bartlett Building, St. Joseph, Mo. ractice limited to diseases of the nervous system.

"BORN WITH A CAUL"—AN OLD SUPERSTITION

Where is the superstition of the caul? It may be that this age-old belief is cherished by benighted people dwelling in big cities, but the caul theory has been passed up by the folk who live in the progressive regions of the pasture land and tall timber. It might seem that babies do not now allow themselves to be born with a caul, or if this happens they seem to pay very little attention to it.

The caul theory has gone the way of many other firm convictions and well established facts. Not many years ago a fortune teller, a soothsayer or an oracle could not do business without having been born with a caul. Nearly every one of these wonderful persons who advertised in the newspapers that they were willing to be consulted on all affairs of love, matrimony and business, set forth that he or she was not only the seventh daughter of the seventh son, or the seventh son of the seventh daughter, but was also born with a caul.

But the caul was the main thing. If the fortune teller or soothsayer, oracle or augur has been born without her caul she could never have foretold that you would take a long trip, cross water, hear good news, learn of something to your advantage, or that a dark woman would cross your path and that a friend to whom you had loaned money would not pay it back.

Can it be that there are persons who require a definition of "caul"? Well, then, the Century: "A membrane which sometimes envelops the head of a child when born."

A baby born with a caul was marked by fairies with wonderful powers. For one thing, he or she would be able to see ghosts. That child would be able to see plumb through that which we, clods of

The Management of an Infant's Diet

Malnutrition, Marasmus or Atrophy

Mellin's Food
4 level tablespoonfuls
Skimmed Milk
8 fluidounces . .
Water
8 fluidounces . .

Analysis:

Fat . . .	.49
Protein . . .	2.28
Carbohydrates . .	6.59
Salts . . .	.58
Water . . .	90.06
	100.00

The principal carbohydrate in Mellin's Food is maltose, which seems to be particularly well adapted in the feeding of poorly nourished infants. Marked benefit may be expected by beginning with the above formula and gradually increasing the Mellin's Food until a gain in weight is observed. Relatively large amounts of Mellin's Food may be given, as maltose is immediately available nutrition. The limit of assimilation for maltose is much higher than other sugars, and the reason for increasing this energy-giving carbohydrate is the minimum amount of fat in the diet made necessary from the well-known inability of marasmic infants to digest enough fat to satisfy their nutritive needs.

Mellin's Food Company, Boston, Mass.

common clay, call the Unseen World. That child could consort and cavort with spirits, but it was also in danger of falling in with evil spirits and of being corrupted by association with devils.

Another remarkable thing about the caul is that it was thought to confer the gift of eloquence. The caul was also a lifesaver against drowning, and it secured a great many persons from dying a watery death. Another strange thing is that a caul could be preserved and used by any other person as a charm against death by drowning; and some years back—say two or three hundred—there was a market for cauls among sailors, and it is set down in books of history that good and guaranteed cauls were bought by seafaring men at rates ranging from $50 to $200.

How many lives were saved at sea by cauls is not to be found in any of the many books of facts, but it is likely that more persons not provided with cauls have been drowned than persons who took the precaution of so fitting out themselves.

David Copperfield was a caul baby, and in his auto biography really written by a rather clever chap called Dickens, he says:

"I was born with a caul which was advertised for sale in the newspapers at the low price of 15 guineas. Whether seagoing people were short of money about that time or were short of faith and preferred cork jackets, I don't know; all I know is that there was but one solitary bidding, and that was from an attorney connected with the bill broking business, who offered 2 pounds in cash and the balance in sherry, but declined to be guaranteed from drowning on any higher bargain."

David tells that the advertisement was withdrawn and the caul was raffled. fifty persons taking a chance at half a crown ahead. Then he says: "The caul was won, I recollect, by an old lady with a hand basket. * * * It is a fact which will be long remembered as remarkable down there that she was never drowned, but died triumphantly in bed at 92. I have understood that it was, to the last, her proudest boast that she had never been on the water in her life, except upon a bridge, and that over her tea (to which she was extremely partial) she, to the last, expressed her indignation at the impiety of mariners and others who had the presumption to go 'meandering' about the world.

AS IT IS SPOKEN

It was in the little but overcrowded classroom of an East Side New York public school. The teacher looked out upon a group of eager faces as she put the question:

"And now, children, can any of you tell me what is a stoic?"

Only one hand went up.

"Does only Abie Glutz know what a stoic is?"

Silence.

"Well, Abie, tell your classmates what is a stoic."

"Please, teacher," said Abie, triumphantly, "A stoic is a boid whot brings in th' babies."—Judge.

REMEMBER!

But yesterday on this same earth with me;
I could have seen you when I wanted to,
But did not trouble. Now Eternity
To the Uncharted Land has tided you;
Clouds, and the spindrift stars, Time's outer sea,
Flood in between, and Time has not a crew
Or bark to launch me on such voyage. Say,
Does Memory not spread returning sail
To this, my earth? Then trust to her today
Some word, a laugh, and I will hear the hail
From you in port where I wait, cast away.

—Calvin Johnston in the Saturday Evening Post.

ADVANTAGES OF THE SALINES

In choosing an agent to promote elimination way of the bowel, we are coming more and more the knowledge that the salines offer far better res than can be obtained from the various vegeta products. In making a selection of a saline. prerequisites of the ideal would have to include following points: First, positive and prompt acti second, it must not produce nausea; third, it m not be unpalatable as to be decidedly objectiona to the patient; fourth, it must tend to leave the gans of elimination functioning normally. Abile Water meets all of the above requirements. Its tion is never accompanied by tenesmus. The pati invariably experiences a heightened sense of comf and buoyancy. If you wish to become better quainted with AbilenA Water, you should write The AbilenA Sales Company, Abilene, Kansas, samples and literature.

LIGHT THERAPY

Doctor, have you a therapeutic lamp in your fice? Are you using it every day in your practi If not, you should read the excellent article in t issue by Dr. A. J. Pacini, on "Quartz Lamp Therap and profit by his advice.

MOUNTAIN VALLEY WATER

Dr. E. H. Eastman, 331 East Forty-seventh Stre Chicago, writes: For twenty years Hot Springs, kansas, was my home, and from 1904 to 1914 practiced medicine at that health resort. Dur my ten years' experience as a physician at H Springs I drank a bottle of Mountain Valley Wa every day and have prescribed it to thousands of tients. I know what it will do in its particular ti of therapy and know that it will do just what claim for it. Not only is it famous in the Uni States, but I have known patients to be returned America by physicians of foreign health resorts w instructions to drink Mountain Valley Water. Th is no better water in the world for ailments of kidney and bladder.

A physician who has prescribed Tongaline many years sums up his experience with the prep ation in the following statements: "For all indefi aches and pains Tongaline is rarely given with the most beneficial results." "Tongaline is al efficient for the relief of pain resulting from ex of uric acid." "Tongaline promptly rids the sy of any and all sorts of poison, making it an eliminant."

In Acne DERMATONE Do
ZEMATOL Does in Eczem
Use Them and Prove Them
Backed by 25 years of success clinical experience.
Catalog of pharmaceuticals mailed on req
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645 St. Clair Street, Chicago, Illi

NOTICE RE HARROWER LABORATORY

nusual attention is being given by the medical ession, these days, to the problem of developing rganotherapy for diabetes. Contrary to an im- sion gained from reading some of the articles, is not a new subject. The recent "discoveries" ly should be called "developments," for a number e been at work on this very problem these many s. An interesting development of very consider- promise is recently announced by Doctor Henry Harrower, who states that he has perfected in his ratory in Glendale, Calif., a pluriglandular for- a directed at the pancreatic deficiency, which is wn to be so important in connection with the dis- . Pan-Secretin Co. (Harrower) is a combination he extract of the tail of the pancreas (rich in the ctory cells), secretin, the well known pancreatic none stimulant, and tonsillar extract. This new duct is worthy of the close attention of our read- for it is rendering efficient service in many ser- cases of diabetes.

A DEPENDABLE ANTILUETIC

n considering a new remedy, physicians nowadays pertinently inquire as to the clinical data ac- ed before the product is offered to the profession arge.

We understand that proposed additions to the spe- ty list of Parke, Davis & Co. are put through a d preliminary clinical test, and that it was only r a trial lasting eighteen months, during which e upwards of ten thousand doses were adminis- d to no less than four hundred patients, that rcurosal, the new synthetic mercurial compound, s made available by Parke, Davis & Company to profession in general.

The distinction claimed for this preparation is that it enables the physician to inject large doses of mercury either intravenously or intramuscularly without unpleasant sequelae; it may be given intravenously without incidental injury to the vessel walls.

The reader is referred to the announcement of the manufacturers in our advertising pages.

LITERATURE OF INTRAVENOUS MEDICATION

In a recent issue of a prominent medical journal there appeared a paragraph deploring the scarcity of literature on the subject of Intravenous Medication. The writer was probably prompted by the increased interest manifested in the subject.

It will be of interest for every practitioner to know that an attempt has been made to compile interesting information on the subject by the New York Intravenous Laboratory, producers of Loeser's Intravenous Solutions. A "Journal of Intravenous Therapy" has been published, which contains probably the best accumulation of clinical and laboratory data pertaining to intravenous medication A copy of this interesting journal can be obtained by addressing, Journal of Intravenous Therapy, 100 West 21st Street, New York City.

THE JOY SUPREME

There's a smile in his voice and a smile on his lips,
His words are as honeyed as what a bee sips;
In his step is a spring; he is walking on air;
For him 'tis a world that is wondrously fair;
He's forgotten its troubles. its woes and its strife—
Today—for the very first time in his life—
He's a grandpa!

—Gertrude Louise Small in the New York Sun.



MOUNTAIN VALLEY WATER

Is Invaluable in Autointoxication

This pure, sparkling water, direct from Hot Springs, Arkansas, is a dependable remedy in cases of autointoxication. It assists the kidneys in their work of selecting the impurities from the blood and eliminating them in the urine. It also arouses the liver to renewed activity, thus giving the bowels enough bile to prevent gas formation and decay of the intestinal contents. The bowels, too, are urged and assisted to do their normal work of ridding the body of accumulated poisons. Soon the patient begins to improve; headaches and dizziness disappear, blood-pressure comes down, appetite increases, kidneys and bowels act regularly and once more there is the usual ability to do one's work without becoming completely fagged out.

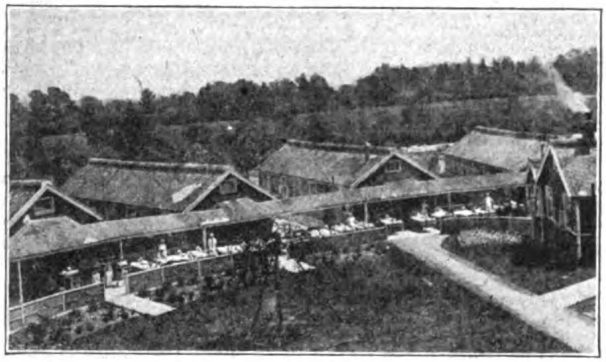
This pure, sparkling, palatable mineral water comes direct from Hot Springs, Arkansas. It is supplied in cases of 1 dozen ½ gallon bottles and in 15 and 30-gallon casks.

Literature to Physicians

Mountain Valley Water Company

550 Grand Avenue Kansas City, Mo. Telephone, Harrison 7084

SUN BATHS FOR CRIPPLED CHILDREN



A wonderful work is being done at Lord Mayor Treloar Cripple's Hospital at Alton, England, where the curative rays of the sun are utilized to aid in the development of the crippled children. Sir Henry Gauvin, the medical superintendent of the Hospital, is an authority on this branch of the work, and is convinced of the great curative powers of the sun's rays in helping with the usual surgical and medical treatment of the little patients.

Picture shows a general view of the hospital buildings.

(Copyright Kadel & Herbert News Photo)

ANTIRABIC IMMUNIZATION BY THE FAMILY PHYSICIAN

When a rabies emergency arises there is no necessity for sending the patient away to a Pasteur Institute nor for interfering with his daily routine of business or home life. He can be treated effectively and with assured safety in his own home or in his physician's office with the Lilly Rabies Vaccine. The Lilly modification of the original Pasteur anti-rabic immunization supplies the family physician a living, safe antigen. The doses are standardized and reach the physician fresh, possessing their expected antigenic content and in the convenient syringe package ready for immediate injection. The Lilly Pasteur treatment has been employed in all parts of the United States for many years. Its use has proven its highly immunizing qualities, its reliability and its safety. No complications have been reported. Neither the routine of the treatment nor the effect of the injections interfere in any serious way with the patient's well being and comfort nor with the performance of his daily tasks. This method has also reduced the mortality expectancy rate in treated cases, based on the statistics of the Pasteur Institutes of the world.

IODINE IN CHRONIC BRONCHITIS

It is true that many cases of chronic bronchitis will improve in a more equable climate, but it is equally true that most patients are unable to make the change. Hence the need for carefully chosen therapeutic agents that will do more than merely soothe the cough.

In these cases it is surprising what benefit is derived from the continued use of iodine, but it must be administered in a form that is least offensive and which may be continued for a long period. It has been found by many clinicians that Iodia (Battle) offers the iodine content needed in these cases, and as it is a carefully compounded mixture it is long tolerated. The use of Iodia (Battle) in chronic bronchitis moderates the condition and helps to protect the sufferer from fresh attacks of catarrh.

It may be kept up during the entire winter season to the patient's marked advantage.

AN OUTSTANDING SEDATIVE

The features that make Pasadyne (Daniel) a reall superior sedative are its marked therapeutic prope ties and its innocuousness even when continued f long periods. When it is shown that its long co tinued use is not followed by depression or other ev results, such as are likely to follow the use of som of the sedatives, then its unusual value becomes ob vious.

It is particularly in women and children tha Pasadyne (Daniel) is of distinct value. No habi formation need be feared and positive therapeut effects may be looked for.

For all purposes of sedation Pasadyne (Daniel) an outstanding agent.

A sample bottle may be had by addressing th laboratory of John B. Daniel, Inc., Atlanta, Ga.

AMERICAN SYNTHETICS

The Fordney-McCumber Tariff Bill, recentl passed by Congress, unfortunately does not provid sufficient protection for American-made medicina chemicals, nor does it compensate for the extensiv research work which has been done by America chemists.

The rates on medicinal chemicals were passed ove the protest of the medical profession. It is no possible for the physicians to follow up their pro test by using only American-made synthetics, an referring to them, at all times, by their America names, as suggested by the Council on Pharmacy an Chemistry of the American Medical Association.

Among the important American-made medicinal which should receive the support of all American doc tors, are Arsphenamine, Barbital, Cinchophen an Procaine. Literature on these products may be ob tained by writing to The Abbott Laboratories, Chi cago.

Its Proper Place in Therapy

"Happily we have a drug which, if given in sufficient amount, cures rickets. Cod-liver oil has been used therapeutically almost one hundred years, but even today it has not been accorded its proper place in therapy."

Hess: Jour. A.M.A., March 12, 1921

The "S. & B. Process"

Clear Norwegian (Lofoten) Cod-liver Oil

is a product of especial care, and is an absolutely pure Lofoten oil, derived from the livers of fresh caught, *true Gadus Morrhuae.* When your patient needs the nourishing and anti-rachitic benefits of cod-liver oil:

℞ **"S. & B. Process"**

Liberal samples will be sent to physicians on request

SCOTT & BOWNE

Bloomfield, New Jersey

Makers of Scott's Emulsion

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ANNUAL INDEX NUMBER

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and Electro-Therapist

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The Medical Fortnightly & Laboratory News

St. Louis Clinique, General Practitioner

and

The Kansas City Medical Index-Lancet



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General Displacement of the Colon into the Pelvis in Intestinal Stasis.

Nujol

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Standard Oil Co. (New Jersey)

Particularly indicated in displacement of the Colon

Room 756, 44 Beaver St., New York

TABLE OF CONTENTS, ADV. PAGE 7

MEDICINE—SURGERY—PHYSIOTHERAPY—X-RAY

A MERRY CHRISTMAS AND A HAPPY NEW YEAR

Serobacterin Immunity

Only One

"There is only one concern in this whole country which puts out a rubber cap on their containers that will not absolutely ruin a platinum needle."

"Thin rubber of the best quality is all that is needed to cap these containers."

(*The Medico, Nov. 1921*)



The Mulford vial and cap described above.

Is a development of the researches of Besredka and Metchnikoff, in the Pasteur Institute, Paris.

Serobacterins are suspension of killed bacteria, with their corresponding antibodies.

They produce both passive and active immunity.

The ***Passive Immunity*** is conferred immediately by the specific antibodies carried by the serobacterin and promptly liberated when injected into the body.

The ***Active Immunity*** follows when the body cells of the patient have responded to the stimulation of the injected bacteria, by producing additional antibodies which replace the antibodies of the serobacterin and remain for a considerable period.

The following Serobacterins are available from the Mulford Laboratories:

ACNE SEROBACTERIN
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NEISSER SEROBACTERIN
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STAPHYLO-SEROBACTERIN
STAPHYLO-ACNE SEROBACTERIN
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TYPHO-SEROBACTERIN MIXED

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H. K. MULFORD COMPANY, Philadelphia, U. S. A.

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THE PIONEER BIOLOGICAL LABORATORIES

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Continuing the Medical Fortnightly and Laboratory News

The Medical Herald
and Electro-Therapist
Incorporating
The Kansas City Medical Index-Lancet
An Independent Monthly Magazine

Vol. XLI DECEMBER, 1922 No. 12

Original Contributions
(EXCLUSIVELY FOR THE MEDICAL HERALD)

CONVULSIONS IN CHILDREN

By S. GROVER BURNETT, A. M., M. D.,
Kansas City, Mo.

EXCLUDING organic brain disease why do children have convulsions? Do you think normal, biological, self-controlling ganglionic cells of the brain cortex are given to convulsive explosions? Do you believe that teething, cutting the lower incisors first, produces convulsions in many children when millions of children, cutting their upper incisors first, do not have convulsions? Do you believe that the occasional stomach upset so unbalances the normal cortical brain cell as to cause general convulsions? Or should we believe that an abnormal brain cortex in a convulsive emotion, a chemical storm, so abnormalizes every secretory and excretory function, digestion arrested, of course, with food in the stomach, until the stomach is much upset with local toxic manifestations? How about the temperature? Is not the secretory and excretory and alimentary toxicity sufficient to produce temperature? And do you know it is the rule to have some temperature follow habit convulsions in both children and adults? Do you all remember your hundreds of children with acutely disturbed alimentation and temperature, perhaps, yet they did not have convulsions? Has the stomach convulsions ever looked to you like teething convulsions were pictured to us 40 years ago? Do you believe that either ever caused convulsions in a child with normal cortical brain cells? Think, will you, of the compensatory power of biologically normal tissue to meet any acute systemic over-load without disintegration of function? Then why ask normal cortical cells to go brain-storming to picture some unknown thing in what we call convulsions because we think we know how to treat convulsions and we don't know how to treat the unknown thing? You know a convulsion is but a symptom of brain cell explosion. Would you believe that a tight prepuce, a disturbed stomach, an error of refraction, or, unerupted teeth out of the physiologic order, are time set fuses with power to overcome physiologic compensation and explode normal cortical brain cells in convulsive form?

Perhaps the greatest predisposition to convulsions is the fact that a babe is a babe. He is always protruded into the world as the unfinished business of intra-uterine life. If he escapes asphyxiation, a vital deteriator of neuronic stability, to eventuate in habit seizures, he is still like an F. O. B. Ford, in part assembled, but yet to undergo many adjustments to develop fineness of function. The myriad of never used parts must now be smoothed into one great perfected function, a brain intake and output without accident. A little maladjustment of a vital part and a convulsion may occur with or without a hemorrhage of the ever-ready terminal arteriole to pour out its noncoagulable, therefore, terrifically destructive blood clot; but the secondary inflammatory and degenerative clot changes, encephalitic cyst formations with resultant idiocies and plegias and epilepsy urges the therapeutic necessity of the earliest possible shortening of the convulsion to prevent a destructive haemorrhage in a little brain of future possibilities. The tendency to vascular exstravisation in the babe is very great and the noncoagulable character of the haemorrhage makes operative interference just plain surgical crime.

But barring gross lesional brain states as the cause of early or late convulsions we must recall that the babe is born with a dual electric system of conductors, the sensory, the ingoing carrier of picked up outer world impressions by the peripheral end-organs, is fully insulated before birth and begins piling the memory centers of the brain with memory stimuli that the new brain must receive, digest and as

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similate into residual fundamentals of the brain's future possibilities. As these memory centers of the cerebral cortex develop memory of language heard, memory of language seen, memory of language spoken, memory of language written and memory of muscular movements of locomotion and expression, of developed ideas and innermost thoughts and judgment acts, then we begin to judge the possible mental standard of the child. There is no perfection of mental and physical development without perfect standardization of these wonderful sensory neurons, always tuned as wireless receivers, reaching out for memory stimuli with which to build and grow brain memories. These neurons from periphery to spinal cord, through all spinal ganglion groopings and decussations, enroute to the brain cortex, are medulated, insulated neurons, and receive the medullation, ready for sensory functional activity as early as the fifth month and at or before the seventh month of fetal life. So at birth the normal babe's brain is overwhelmed with the sudden flow of sensory impressions and he makes a fuss about it in self-defense.

The second conductor of this dual system remains unmedullated during fetal life and at birth it is only incompletely developed. These are motor neurons, pure and simple. They are axones of the motor ganglionic cells of the brain cortex conducting to the peripheral muscular system. These muscular structures cannot enact any coordinated functions till the motor cortical neurons, the gemmular bodies in relation to the cortical tangentials, the dendrites, the cell body and its axone proper, are biologically, chemically. anatomically and physiologically stabilized in their late medullations. It's important to note why the sensory ingoing tract should be developed for duty first; that cortical memories may be stored early so the memory of muscular movements may be ready for use as soon as the motor externalizing tracts are matured for function. This function is to store energy and to coordinately energize the outgoing route. Slight defect in medullation in the circuit anywhere between the cortical, incoming sensory end bulbs and the outgoing motor axone must jeopardize this part of the conduction tract as a safe conductor, or, any chemical misstep in the motor cellar, or, a biological twist in cell elements unfits this part of the circuit to receive the accumulated load of brain memories, awaiting development outlet, or maybe a hyper-sensory accumulation, and the result is the fuse blows out, the flow of energy is dissipated without structural destruction in the circuit. This is the convulsion of the first six months of babyhood of non-organic origin.

This sensory brain building with motor or extrapyramidal exit manifestations applies equally to convulsions in the second six months, argument to the contrary. In the extra six months that the babe escapes from his own predisposition to convulsions the same cortical brain building units were on trial but the sensory over-load, the chemical slip, or the biological weak link came when structural compensation failed. And so on through the second, third or fourth years. The same cortical building is advanced but the same structures have taken on greater brain load that comes with rapid brain growth and development of function. In these years the child must fight the battles of childhood ills, malnutrition and adversities and may lose his cortical integrity that might have been saved under a less devitalizing regime.

Many pediatricians are explaining the spasms of infancy and frequently of childhood as spasmophilia. A writer of some importance says in a recent article: "Spasmophilia is not as common as some suppose." On the next page he says: "Another common cause of convulsions, more common than is appreciated, is Spasmophilia." Spasmophilia is supposed to be due to a neural "Irritability" caused by the calcium and magnesium being out of normal balance with the sodium and potassium constituents, a chemical unbalance, a proof of what?

Anyway Spasmophilia is another word to clutter our vocabulary like neural irritability, local irritation, reflex excitability, reflex convulsions, etcetera. Just words, words, words that put over the argument with no definite basic facts of a condition elicited. If we say a child has lobar pneumonia we immediately picture the pathological facts and mentally review the definite clinical symptoms. We don't waste time discussing neural irritability, excitability, or increased reflex irratibility, though they all be present. Why waste words in true convulsions, pictured in symptoms only of a brain cell chemically out of balance, to undergo molecular changes if not relieved and neurally desensitized till it, with its coordinating structures, may maintain its chemical and functional balance continuously before intracellular pathology is inaugurated; or a brain cell biologically a cripple, is irritable and reflexly excitable; or a brain cell birth trauma, an asphyxiation trauma, we should recognize the condition and not sit and sit contentedly in every case on a collection of ages old symptom rubbish.

Time limitation precludes the necessary description of a convulsion. There is no mistaking the presence of a convulsion. Once present, the utmost thought should be to see how quickly the seizure can be stopped. In babies, prolonged convulsions are dangerously apt to cause a haemorrhage with irreparable dam-

ge to brain tissue. Quick action may prevent eath or a condition worse than death. Every irst convulsion should suggest a possible sec- nd convulsion. Every first convulsion should uggest it is an initial epilepsy and is not to ead to epilepsy. There may be seeming local ause, like diet indiscretion with alimentary pset and temperature, but even that is likely o be a sequal rather than a cause. Any stom- ch and alimentary tract will need a vigor- us house cleaning should a convulsion sus- end disgestion and shoot up the temperature s a result of preverted secretions made poison us and a generated auto-poisoning. Such a linical mask warrants a differential of initial plepsy.

Even evidences of so-called spasmophilia ad better be disregarded rather than over- ook possible Epilepsies. Previous convul- ions are dangerously indicative of incipient pilepsy even if spasmophilia has been diag- osed with seeming recovery and no more at- acks occur for some years later. For that's vhat happens too often. History of recurrent onvulsions, no matter how colorful the ap- arent local cause, we may find the epileptic ase if differentiated. The absence of an aura s the rule in children having epilepsy and is ot against a diagnosis of epilepsy. It may ccur in nocturnal attacks as an outcry and is valuable diagnostic aid. Convulsions dur- ng or following pertussis or following scarlet ever usually prove to be epileptic with such serious toxic-biochemic lesion of the cortical anglionic structure as to make repair futile. This is in line with the argument that non- pileptic convulsions do eventuate brain hanges, culminating in epilepsy. Let us think that thought over till we are satisfied and then see if we can get this thought in action, namely, that a **convulsion never occurs till something has made cortical structures ab- normal.** That's why the first convulsion ma- terializes. But that's why the succeeding con- vulsions mature. Each recurring convulsion tends to fix the brain explosive habit but it's not growing epilepsy. The first attack was epilepsy but the observer had the bridle on the wrong end of the horse and was thinking as he was riding, backward.

There is much of diagnostic significance in a single convulsion if opportunity permits early observation or we can recognize facts when we see them. It's a surprising habit with many physicians who say a convulsion is just a convulsion, not differing from other early childhood convulsions, is of no particu- lar severity, so why worry? But the convul- sion is serious. Just because the child sur- vived, the physician put it over as just a con- vulsion and got away with it, he too, was thinking as he was riding—backward, for some physician will be called in later to make a diagnosis and treat the case properly, some- thing the family physician failed to do.

Twenty-two years ago Dr. O'Donnel of Ellsworth, Kas., had me see a man, 40 years old, an intellectual, successful business man. Within a few days he had three Grand Mal seizures. Technical and detailed examination was negative. Finally an older sister recalled that he had two or three baby teething spasms and three spasms in his seventh year, but none after that and the matter was forgotten. Con- vulsions appearing around 40 years of age are usually due to an infection, syphilis, but often complete histories show late convulsions fol- low baby convulsions. One-sixth of Dr. Dana's cases had convulsions before five years of age. In 225 tabulated cases of my own. one-fifth of the number had convulsions be- fore the fifth year, one-twelfth before the third year and one-sixteenth of all had convulsions before the second year.

A last hint at diagnosis. We should be chagrined to say childhood convulsions are much alike and have no significant features. If we see the patient at once and do not dif- ferentiate for or against incipient epilepsy we are inefficient. In the winter of 1885, walk- ing across the lawn of Belleview Hospital an intern remarked: "That man has had no con- vulsion for some time and could be dis- charged." The man overheard and promptly fell in a convulsion. Prof. Janeway, internist, just stepped up and quickly rushed to him, care- fully viewed the man's pupils, gently slapped his cheeks and laugingly said: "That's fine, get up and see me at the clinic and your home here is assured." Dr. Janeway would lecture on epilepsy and at a prearranged signal, the man fell out of his chair in a convulsion be- fore the class. Each student learned that the pupils were **paralytically wide open** in the con- vulsion onset and that no light exposure would contract them; that on the subsidence of the active spasm stage that the pupils **widely** and **actively opened and closed** regardless of ex- posure to light. This is always the differen- tial symptom in epileptic convulsions. It is never seen in hysterical convulsion or any other convulsion not the product of an epilep- tic background. Failure to see this valuable information or to see it and not recognize it is a regrettable excuse for no differential diag- nosis. If we can't see or can't recognize and interpret the pupillary signs in the two stages of the various manifestations of simple con- vulsions we are therapeutically inefficient and prognostically we will find ourselves thinking as we are riding—backward.

Treatment of convulsions is a chapter by itself and is only touched in passing. The first acts should be quick work. Observe the

pupillary signs at once and stop the convulsions in the shortest time possible. Continued and repeated convulsions in babes may induce brain hemorrhage and forever ruin the brain with a non-coagulable clot. After the convulsion is controlled, after alimentary house cleaning, after the temperature is down, then skillful alimentation is indicated. And then is the time skill in diagnosis should be applied. Analytical skill, beginning with conception (if dad was drunk then), through the pregnancy, severe or prolonged labor, forceps delivery and the asphyxiation period, and the use of H. M. C.'s as an auxiliary or not. All these and other bearings making a clinical estimate will aid us in formulating an individual line of treatment. We should never be misled by repeated convulsions in a child on the fool advice of an officious author who says "the diagnosis of epilepsy is not warranted;" that "it's unwise to make a diagnosis of epilepsy in infancy," but it's allowable to "mention it in childhood;" that he has "known babies and children to have many convulsions and one had 600 and was perfectly well for years." This is dangerous teaching with the information before us (2) (3) today that the diagnosis of potential epilepsy is being made in children before convulsions appear; that the convulsion is an ultimate result like pulmonary cavities are sequelae of neglected tuberculosis. It's a clinical expectancy that convulsions shall recur from 10 to 15 or 20 years of age when preceded by a few convulsions from two to five years of age. A recurrence between the fifth and the tenth years calls for the most vigorous treatment over a three-year period, after all attacks have ceased. (Dana, p. 483, X.) We are dealing with an immature, abnormally conducting and a hypersensitized, ingoing millions of neurons, overbuilding and overloading the brain units of all brain intellectual memory centers, the only exit of which is by way of the wavering tangential bridge to the great motor, outgoing tract that blows up every time its biogenetic defect is unequal to the strain. In other words a perpetually hypersensitized being, somatically, and the greater individual above the orbital plates. The auxiliary treatment means a revamping, a retrimming of habits and retraining of mental and physical processes, growing a new child out of old stuff, pampering his growth and alimentation as an expert would a blooded animal and then the fundamental medication, a one word treatment, namely:

DESENSITIZATION. Systemic desensitization must be learned. It's tedious and vexatious but is the only medium to success. This I have gone into in another paper (3) but it means the most careful desensitization till all hypersensitization is in abeyance and the ingoing and outgoing brain message routes are in a functional balance. I have a long series of confirmed habit convulsion cases that are now from five to thirty years without convulsions. I do not claim they are cured (3) but they are enjoying life free from convulsions. Those of us who still weep verbal tears over the disasters of bromine medication still see no distinction between use and abuse, see no distinction between convulsion and convulsions.

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REFERENCES

1. Dana: Nervous Diseases, Vol. 8.
2. I. Pierce Clark: Treatment of the Epileptic. A. M. A., February 9, 1915.
3. S. Grover Burnett: Treatment of Epilepsy—Thirty-Year Report, Medical Herald, June, 1921.

Note—The use of Luminal in treating habit convulsions and the true psychosis that follows its use briefly related in my former paper (3).

VITAMINES

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Vitamines, a group of indispensable nutritive substances, are interesting not only to the medical profession but to the dental profession the dietitian, the graduate nurse and the housewife. It is believed that many of the diseases dissimilar in character which have been puzzling the clinicians and pathologists for centuries, may in the light of our present knowledge, point to the "vitamine-deficiency theory" as a common etiological cause.

In 1911 Dr. Funk isolated from the coverings of rice Water-Soluble Vitamine B in a fairly pure form. Since that time we have learned of Water-Soluble Vitamine C and Fat-Soluble Vitamine A. The original discovery was due to the development of a strange malady, Beri-Beri or polyneuritis, among the sailors of the Japanese navy. It was learned that the coverings of rice or whole rice relieved the trouble when it had developed and prevented its development.

This medical experiment turned the attention of the scientific world to the investigation of the outer coverings of grains and vegetables which were found to contain this substance known as Vitamine.

It has been found that all three Vitamines are essential to the proper development of the human body. You may have all five elements of the classical constituents of food—proteins, carbohydrates, fats, mineral salts and water—but if the Vitamines are not present the processes of the body will not go on normally. It has also been conclusively proven that the presence of Vitamines are necessary for

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rowth, development, reproduction and the aintenance of the normal physiological state.

These Vitamines are specific in type. For stance, Fat-Soluble Vitamine A has to do ith rickets, sprue, dental caries, xerophthalia, pellagra, lactation and development. Wa-r-Soluble Vitamine B has to do with polyeuritis, Beri-Beri, malnutrition, underdevelpment, lactation, growth and condition. Wa-r Soluble Vitamine C has to do with scurvy, ental pulp, growth and condition. These cts have been definitely proven by numerus experiments upon animals, the experiments aving been sufficient in number to completely rove the conclusions reached.

We know today that the Vitaminic element f a grain of wheat lies in the outer coating and he germ, hence, we have proven to ourselves thing has been known for a long time, that s, that the whole wheat bread is the most nuritious of all breads.

The action of Vitamines is specific and their bsence gives rise to certain diseases. In the bsence of Fat-Soluble Vitamine A in an exerimental rat there develops a general slugishness of the animal, a harshness and roughess of the hair and a condition of xerophthalia. In the case of the absence of Water-oluble Vitamine B a condition of paralysis f the limbs develops with a drawing back of he head and neck, similar to opisthotomus. The absence of Water-Soluble Vitamine C roduces scurvy. All of these conditions are elieved by the administration of the proper itamines. When the Water-Soluble Vitamine B is missing from the food not only is he growth of the animal retarded, and a lack f muscle tonus developed, but the internal rgans are markedly altered. This effect upon he glands of the body is interesting and at he present time the subject is being closely tudied by many who are interested in the levelopment of Vitamine Therapy.

McGarrison, who has studied this phase of itamine deficiency more thoroughly perhaps han any other investigator, considers that Vitmines play a profound and significant part in he etiology of many diseases, which are at he present time of a more or less indefinite ature. He lays stress in particular upon the o-called gastro-intestinal diseases. It has een found that Vitamine deficiency produces n certain glands degeneration and fatty infiltration.

Fat-Soluble Vitamine A is known to exert direct influence upon dentition and dental aries. The absence of Water-Soluble Vitamine C will produce in a guinea pig a ondition which resembles pyorrhea more closely than any condition that can be artificially brought about in animals. These two facts make the subject of Vitamines particularly interesting to the dental profession.

Rickets can be experimentally produced in dogs by taking them as young puppies and feeding them for a considerable length of time on a diet deficient in Fat-Soluble Vitamine A.

The absence of Vitamines in pellagra is a subject for study.

Fat-Soluble Vitamine A is obtained from egg yolk, butter oil, certain fish oils, yellow corn, certain tubers, such as sweet potatoes and yams; also from the leaves of plants such as cabbage, celery and spinich. Water-Soluble Vitamine B is obtained from germs of seeds such as rice and wheat, yeast and from certain vegetables as carrots and parsnips. Water-Soluble Vitamine C is found in citrus fruits such as lemons, oranges and limes, and in germinated pulses such as peas and beans, also in turnips, carrots, beets and cabbages.

Heat and cold have a marked effect upon Vitamines. Fat-Soluble Vitamine A is the most stable. Water-Soluble Vitamine C is the most unstable and Water-Soluble Vitamine B occupies a place about halfway between the other two.

Since the chemical constitution of Vitamines is practically unknown the presence of this element in the products prepared for therapeutic use can only be determined by physiological assay.

In conclusion would state that it is evident that an ideal food must contain something more than proteins, carbohydrates, fats, mineral salts and water. Vitamines must be reckoned with. Withhold the Vitamines and no matter how much we eat we will not receive the nourishment that we need for health and growth. While the Vitamines exist in small quantities in nearly all the food we eat, when in its natural state, the modern processes of preparing food—canning, sterilization, pasteurization, curing, storing and even cooking, often injure or destroy them.

The urgent need for some such medicinal agent as Vitamines has been apparent to the medical profession for some years, for obviously the body needs Vitamines most during illness or convalescence and at such time mere food will not meet the indications. The digestive organs may, and probably will, prove unequal to the task of acting upon the food so as to make use of the Vitamines they may contain.

Special Train to San Francisco—Plans are under way to run a Missouri and Kansas special train to the meeting of the American Medical Association, which meets in San Francisco next year. Full particulars will appear in this magazine from time to time.

HYPERTENSION IN CARDIOVASCULAR DISEASE

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CLINICAL investigation of the intricate problems of cardiovascular disease received its first great stimulus from certain observations of Richard Bright made in 1836. Even then before the microscope or modern physiologic instruments were in use he recognized that the cardiac hypertrophy so often found in chronic renal disease was probably the result of the heart being forced to perform greater work in order to overcome an increased peripheral resistance. After physiology had been placed on a firm basis by Ludwig, several of his pupils applied his methods and instruments to the study of hypertension in man. Much pioneer work of this kind was carried out by Lauder Brunton, but his material was limited chiefly on account of the technical difficulties in making single accurate estimations of blood pressure. Thus, the wide incidence of hypertension in cardiovascular disease was not generally recognized until after Riva-Rocci in 1896 introduced his clinical instrument. Janeway was the first clinician in America to investigate intensively cases of hypertension and his work today is still the basis of most of our ideas regarding the cause and course of cases with increased blood pressure. Janeway admits quite candidly the great difficulties that are met in dealing with the problem of hypertension, but still was able to make some fundamental contributions in elucidating the known facts.

At the Mayo Clinic during the last two years a large number of these cases have been treated and studies. Many patients going through the Clinic for routine medical examination were found to have hypertension and if their resulting symptoms were troublesome they were treated in the hospital. This extensive material and the opportunities for observation and treatment have been unique.

In studying these cases a definite routine plan has been followed based on the fact that hypertension is a general vascular disease and often, though not necessarily, is associated with arteriosclerosis. First the condition of the peripheral arteries are determined. This is done by obtaining a careful history of untoward symptoms resulting from arterial disease. The arterial systems which are carefully considered are. cerebral, coronary, renal and peripheral vessels in the exposed parts of the body. After the taking of such a history a complete physical examination is made. The condition of the radial, brachial, temporal and femoral arteries are determined by palpation. For evidence of cerebral arteriosclerosis, the history of transient paralyses and aphasia is important and residuals are carefully looked for. Very accurate information as to the retinal arteries can be ascertained by routine ophthalmoscopic examination. Foster Moore and Benedict and Wagener have done excellent work in this field of retinal pathology. For data in regard to the coronary arteries careful physical examination of the heart is made for size, action and type of sounds. The electrocardiogram is also often of great help in indicating early degenerative lesions in the myocardium which are secondary to coronary disease. Involvement of the renal vessels is estimated by the relative adequacy of renal function. As observed by Allbutt, Janeway, Volhard and Fahr and others there may often be marked hypertension and still extremely good renal function.

The peripheral arteries in the limbs are also investigated from the point of view of possible paresthesias, or symptoms of Raynaud's disease. Dr. Brown of the Clinic has for the last year, been studying the capillaries of the fingers by the use of the Lombard-Hooker method. He has already noted some very interesting abnormalities in cardiovascular disease. Such work is extremely important as it gives exact data as to capillary function and offers definite possibilities for determining the etiology of hypertension and arteriosclerosis.

Types of Hypertensive Cardiovascular Disease

In benign or essential hypertension (termed hyperpiesis by Allbutt and presclerosis by Huchard), arteriosclerosis may be present or absent and the patient live in good health if certain medical advice is followed for many years. The patient that lead Allbutt to recognize this disease entity lived for eighteen years after hypertension was known to exist. Two important factors in this disease are a disturbed vasomotor regulation and increased metabolism. The unstable vasomotor apparatus may be markedly upset by the mental outlook and emotional changes. These patients, despite mental depression, are often hyperactive and extremely nervous, as a result of which the blood pressure may rise quickly. In a few cases the general metabolism is increased although a hyperactive thyroid cannot be absolutely ruled out.

Malignant hypertension is characterized by vascular crises, persistent high blood pressure, muscular hyperactivity, loss of weight, eye symptoms, slightly increased metabolism and symptoms simulating tumor of the cerebrum

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ıe eye ground signs are exceedingly impor-
nt. The myocardial and renal functions may
may not be seriously involved.

Necropsy statistics show that from 45 to 50
r cent of patients with hypertension in car-
ovascular disease die of cardiac failure or
oplexy; in other words, only from 23 to 32
r cent die of actual renal failure or uremia.

Treatment

The general measures for treatment are diet
d rest. In diet there should be moderation
all things; consideration of the total caloric
quirement. sufficient protein to spare the
ssue protein, a small amount of salt (our
perience does not agree with that of Allen),
ıd a sufficient amount of fluids. In a vascu-
r crisis, absolute rest in bed is indicated;
pnotics and venesection may be employed
ith great benefit.

Insomnia is treated with hypnotics and tepid
ıths in the evenings. Headache and vertigo
ay be treated with hot packs, warm baths
ıd nitrites. Miller reports that sweating for
irty minutes may cause a drop of 20 mm.
ercury.

When myocardial insufficiency is present,
arrel diet, and digitalis are indicated.

Edema of renal insufficiency is treated by a
ılt free diet, and a low fluid intake and nitro-
en retention by low protein diet (15 gm.),
ıd a large intake of water.

In the treatment of ambulatory patients and
ıose convalescing after a vascular crisis, the
ıtient should gradually return to a life of re-
ricted activity. The heart and the cerebral
ıd renal vessels should be protected. The
rinciple of Oertel's treatment in convalescent
ardiac disease is often very helpful in these
atients suffering from hypertensive cardio-
ascular disease.

Summary

Hypertension is essentially a disease of mid-
le and advanced life. The cause is not yet
etermined and there is no definite cure.
lypertension per se (hyperpiesis) has not nec-
ssarily a bad immediate prognosis. It need
ot greatly increase the surgical risk. These
ıcts make the detailed study of cases, as out-
ned, worth the time and effort. Much can
e done in the way of protective therapy along
ietetic and hygienic lines. The whole vas-
ular system of the patient should be protected
nd strengthened by gradually bringing him
p to his tolerance for exercise. The follow-
p system in this type of disease is most im-
ortant.

[[While Pertussin vaccine does not always "work miracles," it does seem to ameliorate he course of the disease and shortens its erm.

HEMORRHAGE AND OTHER COMPLICATIONS OF PULMONARY TUBERCULOSIS

By J. D. GIBSON, M. D., Denver, Colo.

HEMOPTYSIS, or pulmonary hemorrhage, is a very frequent complication with tuberculosis. It is also the most dreaded. Hemorrhage and the sight of red blood being ejected rapidly from the mouth and nose is a sight that makes the stoutest heart quail and frightens patients as nothing else does.

The patient is fortunate indeed whose first symptom is a slight expectorating of blood and the physician should not try to minimize the matter and put his anxiety to sleep, as it is the golden opportunity to save the life and usefulness of the patient. He should be told positively and frankly of the danger and put on his guard as to future developments. The physician should remember that ninety-eight per cent of all blood spitting with or without cough, especially when it wells up into the throat with a warm salty taste, denotes pulmonary tuberculosis and should be so treated.

The fright and anxiety of the patient and family should not be paliated, for this is the accepted time of ready relief, as invariably the disease is positively and definitely curable at this time. Many of these early cases, with rest, diet and tonics, will soon overcome the infection with the patient at home, with home surroundings and save them for a life of usefulness at their own fireside, while, if neglected. the golden opportunity is lost and the individual in the long run has to make a serious and long fight for his life and the danger has been increased many fold.

These patients usually are young, inexperienced and fond of the alluring pleasures of life's early morn, so they should be warned and controlled and the danger definitely explained to them and their family so that the whole surroundings of the patient may be such that, with every little improvement, he is not allowed the privilege of exercise of a drastic nature that sends him to bed again with relapse and increased danger. Therefore, the family must be taught and put on their guard so that they can aid and help in keeping the individual from over-exertion. Many of these cases, it will be found, have a positive amnesia, or distaste for food, and the family, as well as the patient, must be thoroughly drilled in the importance of diet and nutrition in the case. This being done, many of these early cases have almost a positive chance of complete recovery.

Read before the Western Electrotherapeutic Association, Kansas City,, April 17, 1922.

Hemorrhage, as we have stated, may come early in the course of the disease or it may come late or at any time and from any place in the diseased lung. The vast majority of these are not serious and only stimulate the patient to closer chasing and more effort to get well and be relieved of the constant dread of their return. But, this is not always the case as occasionally there will come one that is so severe it will drown the patient in his own blood before help can be procured. Then again there will be repeated recurrence in old advanced cases that will soon exsanguinate patient and tax your skill to the utmost.

Many hemorrhages are produced by traumatism added to a tuberculous condition of the lung, as pulling or stretching of arms high over the head or pulling down from over the head or pulling up with hands similar to trapeze strain, thus drawing heavily upon the apices of both lungs tearing loose old pleural adhesions, producing more or less hemorrhage and making new areas for acute infection and endangering the outcome of the case. Fast and long walks, running and jumping and climbing of stairs, hurrying up hill, etc., all tend to traumatic hemorrhage.

Hemorrhage may develop from ulcerative opening in the veins or arteries and come on in spite of rest and care. When these hemorrhages come this way and the patient is gradually losing ground or failing, they are a bad omen as they will weaken the patient, and are due to erosion or changes in tissues, producing a vicious cycle which tends to aid the unfavorable progress of the disease.

Again, this uboiquotous complication comes on the scene with the patient who is getting well, gaining flesh and strength rapidly, no elevation of temperature, cough almost gone, etc., when suddenly they begin spitting blood and occasionally a serious hemorrhage occurs, to the consternation of the patient himself and to the great chagrin of the physician. In these cases the great increase of weight and increase of pulse pressure from the great improvement in metabolism and blood volume, some weakened points of the circulatory system give way from internal pressure, which nature soon heals when given a chance and the progress is good. I have had patients who would bleed if their weight was allowed to go over a certain point, while if their weight was below this they could work and attend to business regularly without any symptom or danger of bleeding.

There are always two very important things to be carefully guarded—the lungs, themselves, and the general systemic condition. The hemorrhage may be small or easily controlled, yet occur again and again so frequently that they will exsanguinate your patient and he die from exhaustion, or lack of oxygen. Before going into the treatment of these cases, we will study the effects of hemorrhage upon the system, blood and tissues and will follow along the line of Henderson and Haggard in their experimental work with the United States during the war. This will be found as reported in the A. M. A., March 11, 1922.

"Hemorrhage as a cause of depression and death has heretofore generally been considered from the standpoint of the mechanics of the circulation. The loss of blood has been thought of as bringing about its effect through the fall of blood pressure.

At first, the arteries were thought of as inadequately filled, and the condition was conceived as like vasomotor failure. Later the point of view was developed by Henderson, Mann and others, and has now been generally accepted, that, as the peripheral reservoirs are depleted, the venous return to the right heart is lessened, and finally becomes inadequate. As the left heart can discharge into the arterial system only so much blood as runs into the right heart from the veins, the weakened pulse, decreased blood stream and lowered pressure are necessary consequences of deficient venous return.

This conception of hemorrhage is exemplified in the general belief—a belief which, so far as we are aware, no one heretofore has queried—that some solution can be found for intravenous infusion which may serve to replace large fraction of the blood."

Much work has been done by Henderson and Haggard in their investigations for the war department upon this subject and their claim of all solutions being inferior to blood transfusions, the author thinks, is entirely correct. Also, their report upon inhalation of oxygen as a great aid in both surgical and pathological hemorrhages, the writer considers exceedingly important. When the blood pressure is low not only from the quantity of liquid lost, but more from the inhibition of chemical changes and the great suboxidization existing, owing to the loss and poor circulation of the remaining red blood corpuscles, oxygen is of inestimable value.

In serious pulmonary hemorrhages, as elsewhere, we have this serious systemic loss of a chemic nature to overcome or relieve. The trouble in pulmonary hemorrhages is the great majority of cases are aggravated by frequently repeated or recurrent hemorrhages, therefore it is our business first to try to avoid, as much as possible, the dangers of recurrence. We must save these red cells, as well as the plasma and serum, for the patient in his fight against this disease. The truth of the old and trite

ying, "'An ounce of prevention is worth a und of cure," has never been demonstrated ore fully than in lung tuberculosis. The best ıy to prevent the hemorrhage is to cure the ıg as quickly as possible, and this point must ver be forgotten. While as stated above, ood transfusion and oxygen may be needed desperate cases, yet I hope to see the day ıen they will be seldom required.

As demonstrated in the above article, the ood of my patients is kept continually in a gh state of coagulability so they do not bleed ily and if they do, it is more easily con-lled. We do have hemorrhages occasionally cases cutting cavities, also in cleansing out l revivifying the rugged calcareous inside ıditions of old cavities, etc., and also in ies of vascular infection which seems to ve a greater tendency for bleeding than the ıphatic type.

Many patients will only need a hypo of rphine and atropin, and usually, as a method regular procedure, a little fluid extract of got or gossippium should be used with it or loride of calcium. But, when the hem-hage is severe or prolonged, other measures l have to be drawn upon. Morphine is al-ys indicated if it does tend to carbonization it aids the patient to rest, quiets the cough, vents restlessness, lessens the sputum and es a feeling of confidence and well-being to frightened and worried patient. Emetin lrochloride has been used by many in these es and is a remedy to be used when indi-ed.

Biological chemistry has come to our aid in se cases in a wonderful manner. Plain se serum and other serums, such as the an-repticoccic and other serums of this type, frequently used in the treatment of pul-nary hemorrhages. Some years ago the hor used them extensively for this purpose he found in continued hemorrhages that had so much trouble with anaphylactic re-ions he has dropped their use. In the later ım preparations, as hemoplastic, thrombo-stin, etc., he has not found this objection l therefore uses them a great deal, especially capillary and minor hemorrhages.

Again, the author has found pituitrin ostetr) exceedingly powerful for the arrest pulmonary hemorrhages. In serious cases recommends a full dose immediately, to be eated in three or four hours, if needed. This ent is supposed to act pretty much in the ne was as ergot, raising the blood pressure ough the vasometer influence, and the thor frequently uses the capillary hemo-tics, as mentioned above, alternately with pituitrum in serious or severe hemorrhages. have been rather partial to pituitrum for some time and have used hundreds of injec-tions of this agent.

Recently, I had an unusual experience with pituitrum, to which I shall call your attention. I was called to a patient having a slight hem-orrhage. I gave him a hypo of one-fourth gr. of morphine and later 1 cc. of pituitrum hypodermically. I gave him three injections of pituitrum in all. When the hemorrhage ceased forty-eight hours later, patient was taken with a most unbearable pain of a neu-ralgic character in both wrists and hands and both ankles and feet, all at the same time. The pain developed very suddenly to the great surprise of the patient, as well as myself. It was so great that a half gr. of morphine hypo-dermically, frequently repeated with the use of the Burdick light locally on hands and feet. was required to get relief. In about forty-eight hours the pain disappeared.

I could account for this pain in no other way than from some irritation set up by the pituit-rum trough some effects upon the pituitrary gland, or in the pyramidal tract, yet, in the past two or three years, with the frequent use of pituitrum in the treatment of pulmonary hemorrhages, I have never seen anlything develop before as developed in this case.

Rest—absolute rest—is one of the most im-portant aids in treating pulmonary hemor-rhages. I have known cases, not in my own practice, however, that have lain as long as six or eight months absolutely on their backs, without turning to the right or left, for fear of causing a pulmonary hemorrhage. While in some cases this might be necessary, the author thinks that this extreme limit of rest may be avoided by means of the treatments mentioned above, yet, a patient should never be allowed exercise until the hemorrhage is under control.

Strapping the chest with adhesive plaster, or using a strong leather belt, buckled tight around the chest to limit its movement, will be of great assistance in controlling hemor-rhage.

While I am not an enthusiastic advocate of gas or compression of the lung, yet I think it permissible as a final resort in the control of a continually repeating hemorrhage, sapping the life of the patient.

A Criterion—If you sometimes feel yourself slipping from "the fold" and feel that Christian Science is really replacing your religion and your profession, just recall that Jesus Christ never denied a seeker after truth, that He never belittled those who healed the sick and that when He died He cried out in agony and thirst.

DIATHERMY IN THE TREATMENT OF TUBERCULOSIS KIDNEY

By CHESTER TILTON STONE, M. D.
Brooklyn, N. Y.

IN October, 1918, a male Italian, age 37, was referred to me. He complained of pain in the left side which was referred to the tip of the ensiform and to the penis. He also complained of burning urination with marked bleeding and passage of clots at times. During his eighteen years of married life he had become the father of ten children. For over a year he had been unable to do any work. His family history was negative. Up until this present attack, which started with pains and frequency, he had been well. Venereal history was negative. Physical examination showed fine rales at the left apex, no loss of weight, abdominal tenderness to deep pressure, both front and back, over the region of the left kidney; no vomiting. The urine microscopically was cloudy and milky, giving in a 6 oz. sedimentation glass 4 oz. of pus. There was 10 per cent albumin, strong indican, urea 9.6 per cent, sugar negative. Bacteriologically, numerous tubercle bacilli were found. His prostate was tender and boggy and his seminal vesicles distended.

Cystoscopy showed a congested urethra, bladder normal capacity with walls congested and marked hyperemia of the mucous membrane. The trigone was covered with bullous edema. There was no residual urine and no evidence of a growth. The prostate was enlarged and congested. The ureteral orifices were obscure. On being found the left one was seen pouting. The sphincter was hyperemic. The verumontanum was large and congested. On catheterization the left kidney gave 20 per cent albumin; the urine was loaded with pus and tubercle bacilli; the right gave 10 per cent albumin, but no tubercle bacilli were found. The functional tests showed the right functioning well, with practically little functioning in the left.

I placed him in the hospital for a week's observation. At the end of this time he was prepared for operation, my intention being to remove his left kidney. To make more sure of my ground, however, I again cystoscoped him, finding tubercle bacilli present in both kidneys. Upon being informed that an operation was unwise, both he and his family pleaded that I use some method to try to restore his health and spare him for the family, as he was their sole support.

At that time I had been reading some interesting articles by Philip Geyser on diathermy and as a result had been doing some experimental work on the kidneys along that line. Among other experiments was the impregnation of meat with live tubercle bacilli cultures and determining the strength, dosage, and size of electrodes necessary to kill the bacteria with the least damage to the meat.

I, therefore, resolved to put the test to practical proof. At the beginning of our experiment his weight was 137 pounds, and he was so weak that he had to be carried into the office. This was in May, 1919, the interval being used to try to build him up and to prepare him for the treatment. The initial treatments were at weekly intervals. The D'Arsonval current was employed with a four-inch lead electrode anteriorly and a six-inch lead electrode posteriorly. These were so placed that the hot point or centers of the rays focused in the left kidney. The initial dosage was 500 ma. for a period of one-half hour. This was later increased to 1,000 ma. for ten minutes. The treatments were continued over both the left and right kidneys to December, 1919. At this time no tubercle bacilli could be found in his urine, no microscopic pus could be found. and but a faint trace of albumin showed. He then returned to work. During 1920 he took six treatments for a slight attack of pain. On January 29, 1921, I again examined him. His weight was 157 pounds. He was working every day and was free from pain. The urine was negative, cystoscopic examination was negative.

Examination Nov. 29, 1922. Well nourished, weight 160 lbs.; urine negative cystoscopic negative; physical examination negative; working every day and feels fine. One more child has also arrived.

We may not say that this is an absolute cure; only time will tell us that. He is, however, relieved of all the symptoms of which he complained and is again able to work and support his family.—Medical Record.

ORPHANS NEED HELP

The Christian Home Orphanage of Council Bluffs, Ia., which cares daily for 250 children, and which, for nearly forty years, has been a haven for thousands of destitute children from all parts of the country, and which depends wholly upon the voluntary contributions of charitable people for its support, has felt the effects of the close times to such a degree that unless speedy and liberal help comes, the work will be seriously injured. In order to keep its doors open to the hundreds of little ones that apply annually for food and shelter, the home is appealing to the public for donations at Thanksgiving to clear the work of debt and enable it to meet the calls that come to it daily. Address the Christian Home Orphanage, Council Bluffs, Ia., or leave your donation at the office of this paper and it will be forwarded to the orphanage.

Carpings of the Cynic

CARBUNCLE

This bugaboo sooner or later will be up to ou.

Sometimes in the early stage you have a iance, but usually the cases come to you in lvanced and pitiful states of physical desue- ide. Have you done your duty when you nce them free, wide and handsome? Some- mes fatalities result, or there follows months f pain and suppuration and loss of income. an this loss be prevented and the healing astened?

If you get a carbuncle early, will you poul- ce it? or nurse or puncture, or cris-cross, or urette, or vaccinate?—or wait for secondary oci? All of which, according to Dr. Thomas V. Huntington, University of California Hos- ital, are procedures, which are unscientific nd undefensible. He has a plan of campaign hich he thinks is simple, safe and radical, nd puts an end to the carbuncle, but not the atient! First, consider a case taken early, before the central pool of pus has found exit." he operation does not require hospitalization, ut can be done in the office. He says:

"A liberal supply of trichloracetic acid hould be provided, and 15 grains, placed in a vatch-case, are liquified by adding a few drops f water. A dozen or more toothpick applica- ors armed with cotton are provided and a ocal anesthetic is administered. The office urse then grasps with thumbs and fingers of oth hands the adjacent skin on opposite sides f the mass. Thus, firm pressure and squeez- ng will adequately control hemorrhage and ender the entire operation bloodless.

"With a sharp scalpel the surgeon makes a ather liberal incision over the convexity of he mass, care being exercised not to penetrate nderlying infected tissue. The skin is then leflected from the area and the tumor is iso- ated and extirpated by a free dissection hrough healthy tissue. While the blood-sup- ly is under control the wound cavity is freely swabbed with trichloracetic acid until its en- ire surface is heavily incrusted. On removing pressure one or more bleeding points may ap- pear. These are again and again treated until the surface is dry. A light pack of gauze tape is introduced, a small protective dressing is applied, and the patient is instructed to return in two to four days for observation. Mean- while he is allowed to resume his usual occu- pation. The packing is not removed until it is loosened by exudate. The incrustation will ex- trude at the end of a week, leaving a healthy granulating surface. The wound margins can then be approximated with adhesive plaster and prompt healing follows. The resultant scar is negligible. Following this procedure there is absence of pain and other symptoms. Section of the specimen will disclose a small purulent focus centrally which has existed thus far within its protective barrier.

"Later and graver cases, associated with ex- tensive suppuration and undermining of tis- sues, are treated in a similar way. A circum- scribing incision is necessary following as nearly as possible the normal skin margin. A very wide dissection is made and the entire mass is removed EN BLOC. It is essential that all indurated infected tissue be eliminated. and to this end all burrowing cavities should be included. All bleeding vessels should be ligated and the entire wound area should be carefully inspected, to the end that fragmen- tary infected foci may be removed. In this class of cases it has been my practice to swab the resulting cavity with pure carbolic acid and alcohol or camphor-phenol. The wound is then packed with gauze. Frequent dressings are necessary during the first week. For this type of cases a well-appointed operating room and hospital care are essential. By this pro- cedure weeks, sometimes months, of time are saved, convalescence is rapid, and in the ab- sence of grave systemic involvement more se- rious consequences are inhibited.

"This departure from routine practice marks a well-defined advance in surgical procedure."

MODERN SORCERY

Doctor, what do you think of the following account quoted in Varendonck's "The Psycho- logy of Day Dreams":

"Yesterday, before the tribunal, in the course of a divorce case, one of the barristers told a curious story of Envoutement." (French, meaning, to wound an image (often in wax) symbolizing the person whom one wishes to injure, in the belief that the living person will suffer all the pains inflicted on the image.)

"Being separated from his wife for over a year, and convinced that he owed all his trou- bles to his mother-in-law, Baron de J yielded to the temptation of taking a pleasant revenge. He imported from Tokio, at great expense, a magnificent gong of large dimensions; but be- fore hanging it in the hall of his castle he had engraved upon it the likeness of Baroness R., a widow, the mother of his wife.

"The baron now finds real pleasure in ham- mering upon the bronze with all his might, fancying he is beating his mother-in-law's very face. His guests, his domestics, imitate him at all hours of the day. They dash his moth-

er-in-law's nose under the pretext of announcing the meals or of calling a servant.

"The vengeance of the baron became complete when his mother-in-law heard of the facts. Soon it even went beyond his most cruel hopes. The first reaction of the old lady was all ire and indignation. She called upon an attorney who could not intervene. She tried her best to engage a fresh action besides the divorce suit, which she supported to the best of her fury. One day she went rambling with her carriage about the park of her son-in-law, lending an anxious ear to all the sounds proceeding from the castle, and the vibrations of the celebrated gong caused her such exasperations that on coming home she had to go to bed.

"The next day she reappeared with a swollen nose and black eyes.

"A curious phenomenon of auto-suggestion had declared itself during the night. Since this terrible excursion, the Baroness R. believes that she is under the influence of the spell of a sorcerer in the service of her son-in-law. She is sensitive to the blows of the hammer which fall upon her distant image, and her visage bears the traces of the strokes as if she underwent the actual violence. Sometimes she fancies that she herself is a gong and tries to imitate with a cavernous voice the vibrations of the Japanese bronze.

"Purple protuberances disfigure her countenance and her jaws. Sometimes in the midst of a quiet conversation she suddenly emits a painful wail, and has to hold her handkerchief to her nose to stop the bleeding; that means that they have announced breakfast in the house of her son-in-law.

"On certain days the poor widow's face has no longer a human aspect.

"This story produced upon the court an impression the nature of which I hesitate to describe."—LePenple, July 19, 1920. (The subject has been treated by the paper's humorist, but the facts are real).

This case should have been referred to Mrs. Mary Baker G. Eddy, founder of christian science and author of Science and Health with $3.00 Key to Scripture.

A QUESTION—DRIVING IT HOME

Being a regular human doctor as you are, and, supposing **you** are about to take down with a fever or a spell of lingering sickness, protracted and complicated, involving a neurasthenic element, a constipated tendency, a rundown, overworked condition, a pyorrhoea attachment, a prostatic therapeutic enlargement, with as I say, a disease that is going to keep you in bed for several weeks and you are going to require outside help, so that a choice of physicians is now up for consideration and friend wife suggests a doctor she is acquainted with, who seems kind and considerate and is a good nurse, while "daught" suggests a high-powered, grossly scientific doctor—an "Aesculapian Prodigy," and your boy suggests a "Scientific Solomon" rigged, with sails furled, with all the modern charts and compasses; while your friend the dentist, who drops in, favors the "natural born, tactful, medical" man; then along comes your chief surgeon and suggests first that a Pathologist look you over and taps your aegean springs, your chemical laboratory batteries, your wheel basal metabolism and shock absorbers, together with hemolytic lubrication and three bile gear shift, and after you sleep over the matter and ponder, early next morning, the X-ray friend comes by on his way to the closed staff hospital and suggests that he could get you in through Dr. Hebe Spehlist and run you over and see if there were any stones in your rock crusher or any grit in your gravel pits, or any sand functioning in your anatomy, and how,—and all—'n'ev'rything—who gets the job?

FORENSIC QUESTIONS

1. Do thumb-sucking children fill the rank and file of mastubators, sexual perverts and such?

2. Is over-preparation, as of reading, advising, planning, on the part of the expectant mother helpful or harmful?

3. Can any living mortal give a perfectly good reason for coating the baby with talcum powder? The natural elements produced by the skin in health is oil and sweat. The moment the baby's skin produces a scale or "dandruff' a doctor would be consulted, but coating baby with high powered and swift scented talcum is the favorite indoor sport of most mothers.

4. When a mother warns the young child that "If you do that again I will spank you," and doesn't, and "If you go out there the big dog will get you," and it doesn't, and "If you don't be good I'll have the doctor come"—can the Sunday School teacher do a helavalot of good to counteract it in 52 Sundays?

I handled the matter as expeditiously, secretiously and scientifically as the ethics of my profession require and as modern expert salesmanship demands, bringing forward item 34 line 16 page 1, and adding together the profit and loss for a trial balance 'n'ev'rything in the double entry system I felt very salubrious 'n'ev'rything. As Bill Shakespeare says he laughs last who laughs last.—H. N. J.

DIAGNOSTIC CLINIC

"I believe the diagnostic clinic is going to be developed."—Dr. Arthur Bevan, Chicago.

FOOD FOR THOUGHT

In the foods we eat or should eat there are resent very small amounts of certain life-giv-ıg and disease-preventing bodies the con-ımption of which is essential to growth and ood health. Such bodies are called vitamines. –Ellis-Macleod.

Thus our scientific horizon widens. When ıis writer was in medical college our physio-ɔgies taught that our foods must contain pro-ins, fats, carbohydrates, salts, fluids,—body uilding materials. Next came the "calories" s a popular teaching and we were taught that ur foods must contain certain percentages of eat units. Now we are taking on the late and opular modern teaching that if health is main-ıined we must eat of sufficient vitamine bear-ıg food.

Carleton Ellis and Annie Louise Macleod, ɔint authors of a large book (1922) "Vital 'actors of Foods, Vitamines and Nutrition," tate that Vitamine researches have served to nake this decade a monumental one in the lietary field.

To quote these authors further: "At pres-ıt there is little or no knowledge of the actual hemical nature of vitamines but the study of heir function has made most convincing prog-ess."

Lack of vitamines causes a "lowering of body one and subsequent occurrence of symptoms ɔf grave disease" and can undoubtedly be ɔroven.

"Physicians who have been charging many ɔf our ills to the presence of toxins may have ɔ retract the charges in some cases."

This advice, mind you, comes from authori-ies outside of the medical profession and re-ers to the causation of such diseases known as 'deficiency diseases," a knowledge of which these authors think "may lead to substantial changes in medical practice."

H. N. J.

MASTURBATION

Recent experience has convinced us how ex-aggerated were the reports of the old clinical observers concerning the effects of masturba-tion. This is true even in cases where the fre-quency of the practice has been unmistakably pathological. Very rarely does masturbation induce any organic trouble, and perhaps it does so only in cases where serious hereditary pre-disposition exists. As regards the physical consequences of masturbation, these can be re-lieved by timely enlightenment, by calming the patient's fears, and by psychic measures in general. A sense of sin, and a groundless dread of evil results, do far more harm than masturbation per se.—E. Hitschmann, C. and G.

The Holy of Holies

MEDICAL APPEARANCES

I AM in sympathy with hospitals and with the fine, progressive work being done by the staff. But in all kindness I should say that strictly speaking I am not a closed staff advocate. I have had three opportunities to enter closed staff hospitals. The closed staff is un-American and un-democratic.

Also in fairness and in frankness I may say, though not essential, that I am of the old school, old-fashioned, and imbued with the idea that the greatest thing in medicine is not the Pathologist or the Roentgenologist or the Surgeon but the general practitioner. That medicine is now on the return swing of the pendulum and the general practitioner is to be the center and core of future medicine.

This being the case it behooves us to clean house.

The title of this paper is "Medical Appearances."

Doctors are being freely criticized today. Magazines are printing articles about the medical profession, which seems to be on trial; I do not say whether for its past deeds, its present shortcomings or its several stages of development from which it is now emerging into a more highly perfected system.

To meet the public censure and a sometimes just criticism (though often unjust) many things may be done on the part of the individuals of the profession.

It is important that the public know our viewpoint. It is well that we use more publicity or ethical advertising, if any. It is well that the public learn to appreciate that those of the medical profession feel that they are entitled to their money, that they are entitled to make a reasonable living, to accumulate enough to educate their children and to lay up a competence for a rainy day.

It is well that we have a better understanding with our patients about our system of medicine, what it will do and what it will not do; that we do not guarantee any cures, that we still practice an art, even today; that we treat the patient and the disease and the symptoms.

That we have a better understanding about our fees and our charges and our collections if any. That we make our fees reasonably commensurate with the work done and the ability of the patient to pay.

(A surgeon recently told me that his charges for the usual run of operations, major cases, was one month's salary of the wage earner.

This at least seems to be an equitable basis for a scale of prices.)

It is well that the family physician (and this writer thinks there is a family physician, always has been, and always will be a family physician), who should get back more to the administration of the needs of the family; to sympathize with it in its trials and cares and troubles, to give it more of the friendly touch, that fewer cases of sickness be sent to the hospitals: that the home be conserved and be not further disintegrated. On the other hand this writer believes that the solution of medical difficulties of the rural districts is the organization of the community hospital and the staff meeting of the doctors with all the ethical, honest to God doctors of that community in just such a broad, liberal meeting as this with the altruism of our chairman.

But this writer believes that Group Practice can never succeed for the reasons just mentioned (that it takes away the necessary personal touch and contact of the general practitioner and reckons without the host). Group Diagnosis can and will be developed.

It is well that we use our high-powered laboratories, and our desperately scientific technicians and our blue-blooded diagnosticians and our cool calculating surgeons, but not to the exclusion of our own good judgment if any, and valued experience and painstaking endeavor, used in conjunction with the unknown power our patients always possess to heal their own diseases.

It is well that we do everything we can to forestall the general barrage of public criticism now flung at us—that we be less deserving of it.

It is well that we send some honest to God doctors to our legislative halls, that we send them quick, and that we send them!—many of them!

It is well when we go into court against a doctor that we guard our testimony and be charitable, that we temper the wind to the shorn lamb and do as we would be done by.

It is eminently fitting when we succeed another doctor on a case (or in court) that we speak as we would have him speak, if in reverse order. One splash muddies the water of a shallow stream.

It is well that we spruce up our personal appearance, that our nails be clean and free of auto grease and carbon and thumb prints, that we be not over-crowded with jewelry and badges and chains and clips and fountain pens and gloom and abstraction and perspiration and iodoform 'n'everything.

It is well that we take more medical journals and read them and write articles for them, and write to the editors and tell them what our needs are: The high-powered grossly scientific medical paper written by Dr. Hebe Speshlist for the cute little reprint is all right in its way but it does not weigh much and does not add a great deal to the value of the magazine to the general practitioner. Therefore, you write an article like the kind of article you like.

It is well that we speak charitably of chiros and osteos and the pseudos—if at all. We have all we can do to set our own house in order.

We do well if we have no Science and Health with $3 Key to the scripture to peddle. Give them all more rope,—the sooner it is more rotten the quicker our heritage will be restored.

If we are the bone and sinew of living medicine let's prove it and live it.

HAR KING BACK.

SODA SQUIRTERS

The health authorities of the United States have been urging that the soda fountain boys wear some sort of hair net or head covering for the better protection of the public health.

Well, I have never "caught" anything that I know of from the soda squirter getting his hair in my glass, but the thing I do object to, on parking in front of the soda counter, where the attendant is picking his nose, is to have him reach for a glass for me as he takes my order and sticks one of his meat hooks down inside of my glass without first roaching his hair back with his hands.

A CRITIQUE

What do you think of this applied critique: An architect may plan ever so useful and beautiful a building, but if he has not learned that its construction and use at all points must protect and safeguard the public, he is not capable of being a "licensed architect." The grocers and the cooks should stand a similar "test" before being "licensed" to serve the public.

HUNDREDS ARE POISONED

Food Eaten at School Lunch Room Caused Severe Illness.

Birmingham, Ala., Sept. 27.—Several hundred students of the Woodlawn high school here were stricken with ptomaine poisoning as a result of food eaten at the school's lunch room at noon today, according to authorities. Several are said to be severely ill, but at an early hour tonight no fatalities had been reported.

Dr. W. S. Leathers, public health officer of Mississippi, was elected president of the Southern Medical Association, which met last month in Chattanooga. The next meeting will be held in Washington, D. C.

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

American Electrotherapeutic Association.—At the 32nd annual meeting, held in New York City, September 19th to 22nd, officers were elected for the coming year as follows. Dr. Frank E. Peckham of Providence, R. I., president; Dr. Harry E. Stewart of New Haven, Conn., Dr. T. Howard Plank of Chicago, Ill., Dr. Robert J. Henderson of Reading, Pa., Dr. Victor C. Pedersen of New York City, and Dr. Willard P. Whittington of Asheville, N. C., vice-presidents; Dr. J. Willard Travell of New York City was re-elected treasurer; Dr. A. Bern Hirsh of New York City was re-elected recording secretary, and Dr. Richard Kovacs of New York City was re-elected corresponding and financial secretary. Board of trustees: Dr. Wm. Martin of Atlantic City, N. J.; Dr. Frederick de Kraft of New York City, Dr. Byron S. Price of New York City, Dr. Frederick H. Morse of Boston, Mass.; Dr. Virgil C. Kinney of Wellsville, N. Y.; Dr. Wm. D. McFee of Haverhill, Mass.

LECTURES ON PHYSIO-THERAPY

Major C. M. Sampson, chief physio therapy United States Hospital No. 70, New York City, gave a very interesting course at Hotel Baltimore, Kansas City, November 20 to 30, 1922. Dr. Sampson is a master of actino-therapy, and his long experience in the reconstruction hospital at Fox Hills, Staten Island, has qualified him to deal intelligently with this class of instruction. Dr. Sampson has obtained a leave of absence from the service for one year for the purpose of instructing physicians in physiotherapy in various parts of the country, and the service which he is rendering to the medical profession is inestimable. Our advice to those of our readers who have not heard Dr. Sampson's lectures, is to embrace the very first opportunity to get in touch with him. A very interesting feature of his first lecture is a moving picture view of the Fox Hills Hospital, showing hundreds of patients under treatment in the physio-therapy department. Dr. Sampson is a son of Dr. J. H. Sampson of St. Joseph, Mo.

American Physiotherapy Association.—The first annual convention of the American Physiotherapy Association was held in Boston, recently. Dr. Elliot G. Brackett and Dr. Joel E. Goldthwaite, both of whom were active in the organization of the division of reconstruction of the M. C., U. S. Army, during the World War, and Dr. Frank B. Granger were among the speakers.

BREAST CANCER

In the August number of Surgery, Gynecology & Obstetrics Dr. G. E. Pfahler, Philadelphia, says: "Thorough radiation treatment of cancer tissue will devitalize the cancer cells so as to interfere with their inoculation or further development. This, Pfahler says, justifies anteoperative treatment. Radiation effects are most evident on new growing tumor and such radiation will prevent the growth of inoculated tumors. Therefore, he recommends active postoperative treatment of cancer of the breast. Visible and palpable recurrent metastatic cancer are probably only an index of similar disease elsewhere, and therefore the treatment of these cases should not be confined simply to the palpable and visible disease. Such visible and palpable disease should receive the most active treatment and sufficient to cause its destruction and disappearance. Thorough radiation treatment will cause disappearance of tumor tissue in some cases, and therefore can be recommended when there is any reason for avoiding an operation. In every case of cancer of the breast there should be a roentgen-ray examination of the chest, and this should be repeated from time to time to detect any possible invasion of the mediastinum or lungs, sternum or spine."

STUFFED CAPSULES

¶ Cardio-renal disease can hardly be conceived without a previous prolonged period of hypertension.

✣ ✣ ✣

¶ Hypertension is not a disease but a condition, if not corrected leads to pathological changes in the arterial tree.

✣ ✣ ✣

¶ The presence or absence of sugar in the urine has no effect on the blood pressure.

✣ ✣ ✣

¶ Heart failure cannot be definitely foretold by means of any mechanical device known to us today.

✣ ✣ ✣

¶ Many conditions are erroneously assumed to be present based upon the readings of the sphygmomanometer, nevertheless it is one of the most useful diagnostic aids in our armamentarium.

✣ ✣ ✣

¶ A recent discovery is a device called the "sphygmographic arteriometer" for the purpose of measuring the lumen of the artery. It is said that the pulse volume and force can be estimated by the findings of this instrument.

Roentgen Cancer Cured by Diathermy.—Bordier had charge of the roentgen tubes used at Lyons during the war, and in the course of nearly three years supervised 10,755 therapeutic applications of the rays. Twenty epitheliomatous patches developed on his fingers, and the largest patch began to ulcerate and to pain after two or three years. Amputation of the finger was advised, but he applied diathermy himself with his other hand. The severe pain was arrested immediately, and healing was complete in less than two months, and there has been no recurrence during the five or six months since.—Abst. J. A. M. A.

SAME PRESCRIPTION

Doc—There's absolutely nothing the matter with you, madam. You should seek quiet for a while.

She—But, doctor, look at my tongue.

Doc—The same applies to your tongue.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald

and Electro-Therapist

Incorporating the

Kansas City Medical Index-Lancet

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All communications should be addressed to the Managing Editor.

Vol. LXI DECEMBER 15, 1922 Vol. 12

The Editors' Forum

CHRISTMAS DAY

The great psychologic day is approaching. The day when all men experience love, sympathy and regard for others filter into their hearts—when their whole being is tinctured with the milk of human kindness—when harshness relaxes, a spiritual something permeates the soul, an invisible bond draws all men closer; gladness displaces anger, and avarice melts into charity. As Christmas season approaches the halo from the manger diffuses itself like a great aurora borealis enveloping the hearts of men irresistably, unawares yet unmistakably, an atmosphere all enveloping, unsought, yet welcome. We feel its power, enjoy its presence and a little regret its departure. It's the Christian spirit and we don't recognize it. Christianity is not a theory nor a doctrine, but a life—the life of the Galilean—Glory to God in the highest and on earth peace, good will toward men. It is the heritage of all Christian nations. We enjoy it, we give to it, and rightfully too, we revel in it, we wish 'twere Christmas always. Well, it may be. It is to real Christians. When the heart is dominated by love, when self gives way to charity, when the golden rule is the mainspring of life, when we realize that Christianity is not a theory, nor a doctrine, but a life, and we live it, then every day will have the same transforming influence as does Christmas day. J. M. B.

A Merry Christmas to all.

CANCER ROUND TABLE

THE Buchanan County Medical Society, at its regular monthly meeting November 15, held a cancer round table at the Moila Golf Club House, St. Joseph, after a delightful chicken dinner.

The occasion was sponsored by Dr. John M. Doyle, local representative of the American Society for Control of Cancer. Dr. F. H. Ladd, president of the society, was toastmaster. Five-minute talks were made upon the subject, covering most phases of the disease, by Drs. Jacob Geiger, C. A. Good, W. L. Kenney, J. F. Owens, H. W. Carle, H. J. Ravold, E. B. Kessler, W. T. Elam, C. Greenburg, A. B. McGlothlan, Dr. Daniel Morton. The last speaker illustrated cancer of the rectum with lantern slides. Dr. Geo. M. Boteler, health physician of St. Joseph, indicated by reports the mortality of cancer in the city, covering the past four years. They showed a steady increase of death from cancer each year.

Dr. O. T. Bloomer was elected to membership in the society.

THE HEARTY BREAKFAST

IN spite of many editorials and doctors' opinions advocating a hearty breakfast the fact remains that man is not a one type machine to be fed thus and so or to be maintained upon a stereotype outline of a daily procedure. Men differ in habits, in intensive hours of working, in daily needs for food.

The New England hearty breakfast was well adapted to robust people, living in a cold climate, with the daily morning chores, pumping water, bringing in wood, sleeping in cold rooms, looking after the horses and then walking down to business.

It is not adapted to men who sleep in warm rooms, rise, dress, drive to the office in autos and dictate letters all morning and take no physical exercise.

In this field, as in treatment, we must individualize, suit the remedy to the particular case, not to the class, for no two in the class are perfectly similar. Approaching generalities, the proposition will hold, that men who do physical work for a living will do well upon a hearty breakfast, brain workers are better off with a light one or none at all. The caloric value of the meal is based not upon work done, but upon physical exercise, upon physical energy expended, upon energy used and the amount of tissue destroyed by the daily work. The daily habit is a large factor, the man who consumes a hearty meal at seven p. m. spends the evening in an easy chair until bedtime, is still surfeited in the morning, his

ody has not earned a hearty meal within the me limit.

In spite of the crusade against under nutri- ion, the fact remains that the average man of ffairs in this country is overfed, as evidenced y the increase of heart and kidney diseases; e needs, therefore, to beware not only of the earty breakfast but any hearty meal.

There is one class of people who need a earty breakfast, namely, school children, for ere is where under nutrition is most marked. crusade may well be inaugurated against he society mother who from late hours at ards or dancing is too tired to get the child ff well equipped for the day's energy. The hild is given a pick up meal, and as a result he school records indicate under-nutrition. The midmorning ration of milk is then neces- ary. For the average well fed American a nore nationally useful reform would be to con- ider the question of **harmony between diet nd exercise,** the need of proper relaxation and epose to reduce the prevalence of high blood ressure, high nerve tension and cardio vascu- ar diseases.

WHAT IS YOUR DIAGNOSIS?

Mrs. G. comes in with a vague pain in her left knee. She is 68 years old, small of stature, frail, wiry, quick, active. The pain in her left knee is of long standing and "bothers her very much." There is no swelling. Her idea is that it is rheumatism. She is very anxious to help me to that diagnosis.

So after I had taken my pencil and Rx pad for a rheumatism prescription, I began to go over all she had told me and to question very minutely:

"Do you ever limp?"
"No, not much."
"Does the knee swell?"
"No."
"Do you stiffen up on sitting awhile?"
"No; I get better."
And so forth, etcetera.

After much questioning and many confusing replies—that at times both legs hurt her below the knees, that some times her left knee pain went above the knee and down the thigh, that she did not stiffen up when resting but that she got worse on moving about, that for the most part she was worse in the evening, and that work made it worse and rest made it better, we began to get another picture.

There was never any swelling or red places except chigger bites! She had never had any rheumatism before.

She had pain on pressure in the poplital space and along the outer side of the thigh.

And so—

In a pinch, where it comes to a show-down, as frequently it happens, and it seems difficult to say whether the affair is rheumatism or neuralgia, this writer applies this test:

If on sitting or resting one stiffens up, and if it wears off on again moving about the diagnosis is rheumatism. Neuralgia is better mornings, on arising and worse on use or at evening or sundown.

Gross Neuralgic Pill without morphia seemed admirably suitable for this case on account of its tonic effect; one pill to be taken every four hours.

The Hinkle pill was given for a bedtime dose.

(Note: This writer is particular to check up on Gross' Neuralgic Pill. Some of the makes do not dissolve or disintegrate but pass, whole. If there is no quinine effect after the third or fourth pill change to some other make of this pill or tablet.)—H. N. J.

SOUTHERN CONVENTION OPPOSES A. M. A. SUGGESTION

THE members present at the annual banquet of officers of state medical societies and public health officials comprising the sixteen states of the Southern Medical Association went on record at Chattanooga as opposing dividing the United States into medical districts as suggested by Dr. Hubert Work, retiring president of the American Medical Association.

The question was first brought up by Dr. Holman Taylor of Fort Worth, Tex., secretary-editor of the Texas State Medical Society, and later the following resolutions, offered by Dr. Graham E. Henson of Jacksonville, Fla., were unanimously adopted:

"Whereas, It has been suggested by Dr. Hubert Work, retiring president of the American Medical Association, to divide the United States of America into district medical organizations; and,

"Whereas, The matter is to be a subject of discussion before the conference of secretaries to be held in Chicago, November 17 and 18; and,

"Whereas, It is believed that the forming of such districts would not only be of no advantage to the Southern states, but would be actually detrimental to organized medicine;

"Be It Resolved. That the presidents and secretaries of the state organizations and public health officials of the sixteen Southern states, comprising the Southern Medical Association, in annual conference assembled go on record as being opposed to the suggested districting of the United States of America; and

"Be It Further Resolved, That a copy of these resolutions be presented to the conference of secretaries to be held in Chicago under the auspices of the American Medical Association and that copies be furnished to the committee of the American Medical Association, to which this matter was referred by the house of delegates at the St. Louis meeting, and that copies also be furnished the secretaries of each and every sectional medical organization throughout the United States."

Society Scintillations

MEDICAL SOCIETY OF THE MISSOURI VALLEY

Minutes of the Thirty-fifth Annual Meeting at St. Joseph, Mo., September 21-22, 1922

The association was called to order at 10 a. m., in the Crystal room of Hotel Robidoux, by Dr. Floyd H. Spencer, chairman of the arrangement committee. After announcing the program of entertainment, the chairman introduced the presiding officer, Dr. Paul E. Gardner of New Hampton, Iowa. Upon taking the chair Dr. Gardner proceeded with the regular order of business.

Upon motion duly seconded, the reading of the minutes of the last meeting was omitted, the same having been printed in the official journal. President Gardner then appointed as a committees on credentials Bell, Lehnhoff, and McMichael. The secretary presented his annual report:

Secretary's Report

To the Officers and Members: I have the honor to submit the thirty-fourth annual report of the secretary of our association. The last annual meeting was held in Kansas City, October 24-28, under the presidency of Dr. W. O. Bridges of Omaha. This meeting was a joint session of the Missouri Valley and the Medical Association of the Southwest, the latter presided over by Dr. E. H. Skinner of Kansas City. This convention was one of the most notable ever held in the West, the attendance being around 700. Joint sessions were held on two occasions when men of international reputation addressed the assembly. Among them were: Drs. Hugh Cabot, A. H. Hamil, M. P. Ravenel, William Englebach, Bransford Lewis, H. L. Kretschmer, Frank Parsons Norbury, and F. Garm Norbury. The interest in this meeting was augmented by the addition of the Mid-West Association of Anesthetists and the Southwestern Urological Association. Interesting clinics were held every morning, under the direction of the Eighty-Ninth Division Medical Association. In addition to the general session, meetings were held in five distinct sessions each presided over by a chairman. All together this joint meeting was pronounced a distinct success, and in closing, Dr. Lord proposed a vote of thanks to the committees and officers having the meeting in charge, and said that he hoped that the joint meeting of these two associations would be repeated in the near future.

Since this meeting a number of members in both associations have expressed the hope, not only that the affair would be repeated, but offered the suggestion that a consolidation of these two bodies would be a happy event. I am convinced that there is a place for a great regional association in the Middle-West, which may grow to be as useful and powerful as the Southern Medical Association has grown—the latter now having a membership of 7,000. The thought is worthy of the consideration of our members.

During the year just passed, we have gained 27 new members. We have lost nine; three by death; three by resignation, and three by removal. The death roll includes: Dr. W. K. Loughbridge, Omaha, Neb.; Dr. J. F. Stevens, Lincoln, Neb., and our beloved Dr. C. Lester Hall, Kansas City, who was stricken during the meeting of the A. M. A., at St. Louis, and died June 10, 1922. The removals include Dr. John W. Shuman, of Sioux City, who has been appointed to the chair of internal medicine in the American University of Syria, located at Beirut. This institution is connected with Columbia University New York. Dr. Shuman succeeded Dr. Graham, who occupied the chair for thirty-three years. Dr. Shuman, I am sure, has the best wishes of the association in his new field of labor. He will be greatly missed at our annual meetings.

The lure of California has attracted three additional members of our society, Dr. L. L. Henninger of Council Bluffs, Dr. F. E. Coulter of Omaha and Dr. E. A. Wood of Sedalia, Mo.,. Two resignations of old members came in the same mail, a reminder of the "sere and yellow leaf" days of the elder Macrea, Thomas, Moore et al. Dr. M. L. Hildreth of Lyons, Neb., a charter member, having enrolled in 1888, and Dr. I. N. Pickett of Odell, Neb., who joined the society in 1903. Dr. Pickett has been in practice for 44 years, past the allotted span of life—three score and ten. He is almost deaf, and therefore cannot get the benefit of association meetings and must therefore, he says "bid the society good-bye." I would suggest that Drs. Hildreth and Pickett be placed on the honorary list of the association. They have been placed upon the Herald list for life.

I wish to call the attention of the society to the fact that it has not had a constitution and by-laws for the past 20 years; which, however, is of itself a demonstration of the democratic character of our society and the absence of politics in our ranks.

I would suggest that a committee be appointed to revise the constitution and by-laws, making the document as brief as possible, and presenting the same at the next meeting.

I wish to suggest an amendment; in place of two vice-presidents I would propose a vice-president from each state represented in our society and an assistant or recording secretary, to be elected from the city in which the annual meeting is held.

In conclusion I wish to extend my sincere thanks to the committees, officers and individual members who have given such excellent co-operation during the year.

Respectfully submitted,
CHAS. WOOD FASSETT, Secretary.

Upon motion the report was received and adopted Upon motion the secretary's recommendation that Dr Hildreth and Dr. Pickett be placed upon the honorary list, carried unanimously.

The motion to appoint a committee on by-laws and constitution was lost.

Upon motion of Dr. Morton, the chair was authorized to appoint a committee of three to confer with a committee of the Southwest Medical Association with a view to a possible consolidation of the two societies.

The president then called Dr. Lehnhoff to the chair, and read his presidential address. (See page 283, October issue.)

Upon motion the election of officers and selection of next place of meeting was made a special order of business for 11:30 o'clock Friday.

Telegrams of regret were received from Drs. William Jepson, Fred J. Taussig, A. I. McKinnon, and Leigh F. Watson. The following papers were then read and discussed:

"Importance of Breast Feeding," J. Raymond Martin, Sioux City, Iowa. Discussed by A. B. Somer and H. M. McClanahan.

"The Management of Traumatisms to the Cornea," S. R. Gifford, Omaha. Discussed by Robt. Caldwell, Little Rock, Ark.

"Toxic Factors in Intestinal Obstruction," T. G Orr, Kansas City, Mo. Discussed by A. L. Smith

"Convulsions in Children," S. Grover Burnett, Kansas City, Mo. Discussed by H. M. McClanahan, A. . Smith and Hogswell.

"The Nature and Treatment of Bronchial Asthma," ogan Clendening, Kansas City, Mo. Discussed by . J. Lehnhoff.

Afternoon Session—1:30 o'Clock

The following papers were read and discussed:

"The Phosphatic Index or Pulse of the Nervous ystem," Buffalo, New York. Discussed by Lloyd J. hompson.

"Some Phases of the Relation of Dental Focal and ystemic Diseases" (Lantern Slides), by Russell L. laden, Kansas City, Mo. Discussed by Raymond L. atchem, E. H. Skinner, A. L. Smith.

"Renal Function in Prostatic Hypertrophy," Raymond L. Latchem, Sioux City, Iowa. Discussed by V. T. Elam, T. M. Paul, C. K. Smith, and J. Frisher.

"Diagnostic Methods in Kidney and Urethral Disase," John Mills Mayhew and Arthur L. Smith, Lincoln, Neb. Discussed by T. M. Paul, J. Frischer, and . K. Smith.

"The Importance of Lesions of the Ureter in Diseases of the Upper Urinary Tract," Clinton K. Smith, Kansas City, Mo. Discussed by H. J. Lehnhoff and R. L. Latchem.

Evening Session—7:30 o'Clock

The evening session was one of rare interest and ntertainment. John B. Wood of Kansas City, Mo., resented an excellent paper, "Vitamines," (illustrated y lantern slides).

E. P. Sloan, Bloomington, Ill., gave a moving picture demonstration of his operation for "Goiter," a most valuable contribution. N. M. Keith, Mayo Clinic, Rochester, gave a lecture on "Hypertension in Cardio-Vascular Disease" with lantern demonstration. This paper brought out many valuable points, and was one of the most interesting contributions of the session.

After the adjournment the members were invited to a smoker and athletic entertainment where they were guests of the Buchanan County Medical Society, and spent a most enjoyable evening.

Second Day—9 a. m.

The credentials committee presented its report and announced the names of 28 applications for membership. Upon motion the rules were suspended and the applicants were elected to membership in the association. The following is the list:

New Members:

D. E. Blacklock, King City, Mo.; C. S. Branson, St. Joseph, Mo.; H. S. Conrad, St. Joseph, Mo.; James A. Crockett, Stanberry, Mo.; J. W. Duncan, Omaha, Neb.; M. J. Farber, St. Joseph, Mo.; W. K. Fast, Atchison, Kan.; George Wm. Fegers, Nebraska City, Neb.; Julius Frischer, Kansas City, Mo.; S. R. Gifford, Omaha, Neb.; Lynne B. Greene, Kansas City, Mo.; W. H. Hill, St. Joseph, Mo.; Raymond L. Latchem, Sioux City, Iowa; J. A. Larrabee, Barnard, Mo.; Fred H. Ladd, St. Joseph, Mo.; H. D. Kearby, St. Joseph, Mo.; E. A. Mendell, St. Joseph, Mo.; J. Raymond Martin, Sioux City, Iowa; Walter C. Myers, Savannah, Mo.; I. N. Miller, Kansas City, Mo.; Jas. H. Morroway, Ridgeway, Mo.; H. J. Ravold, St. Joseph, Mo.; Thomas Redmond, St. Joseph, Mo.; E. P. Sloan, Bloomington, Ill.; Clinton K. Smith, Kansas City, Mo.; B. W. Toothaker, St. Joseph, Mo.; Lloyd James Thompson, St. Joseph, Mo.; R. Willman, St. Joseph, Mo.; Charles H. Werner, St. Joseph, Mo.; L. H. Fuson, St. Joseph, Mo.

Frank Smithies of Chicago, Ill., presented an excellent paper on "The Modern Meaning of Biliousness: Its Symptomatology and Treatment." (Illustrated by lantern slides). The following papers were then read and discussed:

Symposium on Cancer

"Superficial Cancers," E. H. Skinner, Kansas City, Missouri.

"Epithelioma," Lynne B. Greene, Kansas City, Mo.

"Gastro-Intestinal Cancers," John M. Bell, St. Joseph, Mo.

"Cancer of the Breast," Donald Macrea, Council Bluffs, Iowa.

"Cancer of the Uterus," Palmer Findley, Omaha, Neb. Discussed by George H. Hoxie and Frank Smithies.

"Myoclonic Type of Epidemic Encephalitis," Lloyd James Thompson, St. Joseph, Mo.

"Diabetes Mellitus," L. H. Fuson, St. Joseph, Mo.

Dr. Gardner announced on the matter of consolidation of the Southwest, Fassett, Skinner, and Bell.

The election of officers resulted as follows: President, Dr. Floyd H. Spencer, St. Joseph; First Vice-president, Dr. W. S. Stotler, Shenandoah, Iowa; Second Vice-president, Dr. Palmer Findley, Omaha, Nebraska; Treasurer, Dr. O. C. Gebhart, St. Joseph, Mo. (re-elected); Secretary, Dr. Charles Wood Fassett, Kansas City, Mo. (re-elected).

Upon motion a vote of thanks was extended to the local committees, Hotel Robidoux, to the ladies and the medical profession of St. Joseph for their generous hospitality.

Upon motion the bills of expense for past year were read and warrants authorized for payment.

St. Louis, Kansas City and Omaha submitted invitations for the next meeting. The ballot resulted in the choice of Omaha, next meeting September, 1923.

CHARLES WOOD FASSETT, Secretary.

Note—Members are requested to report promptly any errors or omissions in the above minutes. All papers read at this meeting will appear in this magazine.

The Commercial Exhibits

An attractive exhibit of instruments and appliances occupied the Red room, Hotel Lobby and the Mezzanine floor of the Hotel Robidoux. Following is a list of exhibitors:

Aunt Jemima Mills Company	St. Joseph, Mo.
Erschell Davis Company	Kansas City, Mo.
Goetze-Niemer Company	St. Joseph, Mo.
Hettinger Bros. Mfg. Company	Kansas City, Mo.
Iodum-Miller Company	Kansas City, Mo.
Kansas City Oxygen Gas Company	Kansas City, Mo.
Mr. Charles F. Mills	Kansas City, Mo.
Mountain Valley Water Company	Kansas City, Mo
Magnuson X-Ray Company	Omaha, Neb.
Physicians' Supply Company	Kansas City, Mo.
W. A. Rosenthal X-Ray Company	Kansas City, Mo.
E. R. Squibb & Sons	Kansas City, Mo.
Twentieth Century Chemical Co.	Kansas City, Mo.
Victor X-Ray Corporation	Chicago, Ill.
C. V. Mosby Company	St. Louis, Mo.

AMERICAN UROLOGS AT HOT SPRINGS

The meeting of the Southwestern Branch of the American Urological Association was held in conjunction with the meeting of the Medical Association of the Southwest, at the Eastman Hotel October 17. The Urological Society with several invited guests participated in a luncheon at 12 o'clock. Following the luncheon the society met in scientific session. The papers were received with enthusiasm and a liberal discussion was accorded in every instance. The following officers were elected for the coming year:

President—Dr. John R Caulk, St. Louis, Mo.

Vice President—Dr. W. J. Wallace, Oklahoma City.

Secretary-Treasurer—Dr. Clinton K. Smith, Kansas City.

Next meeting at Kansas City in 1923.

THE AMERICAN ACADEMY OF OPHTHALMOLOGY AND OTO-LARYNGOLOGY HELD ITS TWENTY-SEVENTH ANNUAL MEETING AT THE TWIN CITIES, MINNEAPOLIS AND ST. PAUL, MINN., SEPTEMBER 19 TO 23, 1922

Report by Hal Foster, M. D., F. A. C. S.,
Kansas City, Mo.

Dr. Walter R. Parker of Detroit, the president, called the meeting to order promptly, September 19, 9:00 a. m. The meeting was held in the Auditorium of the School of Music of the University of Minnesota. Dr. L. D. Coffman, president, and Dr. E. P. Lyon, dean, University of Minnesota, delivered addresses of welcome.

Tuesday, September 19, 10:00 a. m., before a joint session, president's address, Dr. Walter R. Parker, was delivered. Dr. Edward Jackson, Denver, Colo; "Case Taking and Case Records." Discussion was opened by Dr. Robert Scott Lamb, Washington, D. C. "Some Points of Technique in a Combined Intra-and-Extra Nasal Dacryocystotomy," Dr. J. Sheldon Clark, Freeport, Ill. Discussion was opened by Dr. J. C. Beck, Chicago. "Ophthalmoscopic Findings of Various Species of Vertebraes," Dr. John H. Rindlaub, Fargo, N. D. Dr. Marcus Feingold, New Orleans, La., opened this discussion. "Nystagmus," by Dr. George W. MacKenzie, Philadelphia, Pa. Prof. Robert Barany, Upsala University, Sweden, opened this discussion.

Tuesday, September 19, 2:00 p. m. The session of Ophthalmology was held in the Little Theater of the University of Minnesota, Dr. Walter Parker presiding. Dr. Louis F. Love, Philadelphia, Pa., "Corneal Deposits of Cholesterin and Lime Salts Entirely dissolved by the Application of 95% Alcohol Solution." Discussion was opened by Dr. W. H. Crisp, Denver, Colo. "Neurofibroma of the Orbit," Dr. Edward Stieren, Pittsburgh, Pa. "Tumors and Cysts Arising Near the Apex of the Orbit," Dr. William L. Benedict, Rochester, Minn. "A Case of Malignant Lymphoma of the Lachrymal Gland," Dr. Lee Masten Francis, Buffalo, N. Y. "Bilateral Tumors of the Lachrymal and Partoid Glands," Dr. John L. Scales, Shreveport, La. The discussion on these papers was opened by Dr. Edward B. Heckel, Pittsburgs, Pa., Dr. Harold Gifford, Omaha, Neb., and Dr. W. R. Murray, Minneapolis, Minn.

Tuesday, September 19, 2:00 p. m. Ball room of Minnesota University. The section of Oto-Laryngology was presided over by Dr. Ross Hall Skillern, frist vice-president, Philadelphia, Pa. These papers were read and discussed: "The Early Diagnosis of Laryngeal Tuberculosis," Dr. Frank R. Spencer, Boulder, Colo. This discussion was participated in by Drs. Robert Levy and T. E. Carmody, Denver, Colo. "The Report of a Group of Cases of Otitic Sinus Thrombosis," Dr. Seymour Oppenheimer, New York, N. Y. Discussion opened by Dr. Emil Mayer, New York, N. Y "The Report of Two Cases of Tumors of the Trachea," Dr. Hal Foster, Kansas City, Mo. Discussion opened by Dr. Richmond McKinney, Memphis, Tenn. "Otitis Media Complicating Gasserian Ganglion Operations," Dr. H. R. Lyons, Rochester, Minn. Discussion opened by Dr. Ira Frank, Chicago, Ill.

Wednesday, September 20 9:00 a. m. Joint session, Auditorium School of Music, Minnesota University. Vice-president's address. "The End Results of Radical Operations on Accessory Sinuses." Dr. Ross Hall Skillern, Philadelphia, Pa. "New Method of Radical Operation for Chronic Ear Suppuration," Prof. Robert Barany, Upsala University, Sweden. The discussion was opened by Dr. M. A. Goldstein, St. Louis, Mo., Dr. H. I. Lillie, Rochester, Minn., and Dr. S. H. Large, Cleveland, O. "Infiltration Anesthesia in Ophthalmic Surgery," Drs. A. S. and L. D. Green, San Francisco, Calif. Discussion opened by Dr. Albert E. Bulson, Jr., Ft. Wayne, Ind. "Local Anesthetics—The Prevention and Treatment of Poisoning Therefrom," Dr. Austin A. Hayden, Chicago, Ill. Discussion opened by Dr. P. M. Farrington, Memphis, Tenn., and Dr. Levy Mayer, New York, N. Y. "Further Observations on the Anatomy of the Vitreous Body," Dr. F. Park Lewis, Buffalo, N. Y. Discussion was opened by Dr. Harry S. Gradle, Chicago, Ill.

Thursday, September 21, 9:00 a. m. Dr. T. E. Carmody of Denver was elected president, Dr. Luther C. peter was re-elected secretary and Washington, D. C., was selected for the 1923 meeting place. A large number of new Fellows were elected to fellowship into the Academy. The names of the nine members who had died during the year were read, the entire audience stood with bowed head in their honor for a few moments. New instruments and cases were now demonstrated. Some excellent photographs and microscopic specimens were also demonstrated, as well as many pathological specimens. The commercial exhibit was very conveniently displayed and well patronized.

Thursday, September 21, 10:00 a. m. Dr. Joseph L. McCool, Portland, Ore., read a paper, "Tenotomy of the Inferior Oblique Muscle as an Aid in the Correction of Certain Forms of Squint." Discussion opened by Dr. H. W. Woodruff, Joliet, Ill. "Symposium on Refraction." "Some Practical Points in Refraction," Dr. Cassius D. Westcott, Chicago, Ill. "A Plea for More General Use of the Cross Cylinder," Dr. William H. Crisp, Denver, Colo. "The Practical Side of the Ophthalmometer," Dr. Otis Orendorff, Canon City, Colo. "Three Cases of Asthenopia Treated by Psychotherapy," Dr. Walter B. Lancaster, Boston, Mass. Discussion on these papers were opened by Dr. Edward Jackson, Denver, Colo., Dr. John Ray Newcomb, Indianapolis, Ind., Dr. J. M. Patton, Omaha, Neb., and E. C. Ellett, Memphis, Tenn.

Thursday, September 21, 10:00 a. m. Ball room Section of Oto-Larynologly was called to order by Dr. Ross Hall Skillern of Philadelphia, Pa. "Some Cases of Prehistoric Nasal Pathology," Dr. Frank Albert Burton, Denver, Colo. Discussion by Dr. Joseph Allen, Denver, Colo. "A Typical External Operation for the Abscesses Descending From the Upper Air Passages; Combined With Prophylactic Collar Mediastinotomy," Dr. Otto Glogau, New York, N. Y. Discussion was opened by Dr. Emil Mayer, New York, N. Y. "Sinusitis From Swimming," Dr. Ralph A. Fenton, Portland, Ore. Discussion was opened by Dr. Ross Hall Skillern, Philadelphia, Pa. "Normal and Abnormal Pneumatization of the Temporal Bone," Dr. Norval H. Pierce, Chicago, Ill. Discussion was opened by Dr. George MacKenzie, Philadelphia, Pa.

Thursday, September 21, 2:00 p. m. Little Theatre, Minnesota University. Section of Ophthalmology met, presided over by President Walter R. Parker of Detroit, Mich. "A Report of Two Cases of Sympathetic Ophthalmia, Presenting Unusual Features," Dr. E. C. Ellett, Memphis, Tenn. Discussion was opened by Dr. Wm. H. Wilder, Chicago, Ill. "A Study of the Fundus Changes in Nephritis: Second Series," Dr. George Slocum, Ann Arbor, Mich. Discussion was opened by Dr. Russell L. Finch, Ann Arbor, Mich., and Dr. William H. Crisp, Denver, Colo., "Smallpox Keratitis," Dr. James M. Patton, Omaha, Neb. Discussion was opened by Dr. Nelson M. Black, Milwaukee, Wiss. "Several Cases of Eye and Ear Trouble Due to Unerupted Teeth," Dr. J. A. Stucky, Lexing-

on, Ky. Discussion was opened by Dr. Edward ieren, Pittsburgh, Pa. "Traumatic Facial Diplegia." Dr. George F. Keiper, LaFayette, Ind. Discussion vas opened by Dr. S. Iglauer, Cincinnati, O.

Thursday, September 21, 2:00 p. m. Section of)to-Laryngology met in ball room of Minnesota Jniversity. "A Submucous Plastic Operation for Jasal Deformities of Cartilaginous Origin," Dr. J. d Banister, Omaha, Neb. Discussion was opened by Dr. J. A. Pratt, Minnesota, Minn. "The New Method of Demonstrating the Surgical Anatomy of the Nasal Accessory Sinuses," Dr. Robert F. Ridpath, Philadelphia, Pa. Discussion was opened by Dr. Joseph C. Beck, Chicago, Ill. "Herpes Zoster Oticus," Dr. J. A. Watson, Minneapolis, Minn. Discussion was opened by Dr. J. M. Ingersoll, Cleveland, O. "Pollens and Hay Fever," Dr. W. V. Mullin, Colorado Springs, Colo. Discussion was opened by Dr. Robert Ridpath, Philadelphia, Pa.

Thursday night, Friday and Saturday were given over to the Instructional Course. This course was first given in Philadelphia at the last year's meeting and was so beneficial it was decided to continue it at the Minneapolis and St. Paul meeting. Program of Section on Instruction follows.

Thursday night, 8:00 o'clock sharp. The Church of the Redeemer. "Dacryo-Rhino-Cystotomy." Dr. James M. Patton, Omaha, Neb., (a) "The Regional Anatomy of the Tear Sac." Slides and specimens were used. 8:45. Dr. Ralph A. Fenton, Portland, Ore. (b) "Indications and Contraindications for the Operation." 9:15. Dr. H. P. Mosher, Boston, Mass. Subject (c) "Surgery: Technic of Selected Methods." (1) "External." Subject (c) "Surgery: Technic of Selected Methods." (2) "Combined." Dr. W E. Sauer, St. Louis, Mo. Subject (c) "Surgery: Technic of Selected Methods." (3) "Internal." Dr. Sidney Yankauer, New York, N. Y. Time allowed Drs. Mosher, Sauer and Yankauer 9:15 to 10:25. Subject, "Dacyro-Rhino-Cystotomy." (d) "Postoperative Care and Complications Ensuing." Dr. R. A. Barlow, South Bend, Ind. 10:25 to 10:45. All of these essayists used lantern slides. The papers were of a high order and instructive.

Friday, 9:00 a. m. Chemistry Building Campus, University of Minnesota. "Modern Views Concerning the Labyrinth." Prof. Robert Barany, Upsala, Sweden. "Nervous and Vascular Supply of the Nose and Throat." Dr. H. J. Prentiss, Iowa City, Ia. "Diagnosis of Paranasal Sinus Disease," Dr. R. Bishop, Canfield, Ann Arbor, Mich. "Fractures of Nose," Dr. Ira Frank, Chicago, Ill. "Oral Surgery." Dr. T. E. Carmody, Denver, Colo. "Iridocyclitis: Anatomy and Embryology." Dr. Walter Scott Franklin, San Francisco, Calif. "Iridocyclitis: Pathology." Dr. Nelson Miles Black, Milwaukee, Wis. "Iridocyclitis: Differential Diagnosis." Dr. E. C Dett, Memphis, Tenn. "Iridocyclitis: Etiology." Dr. Lee M. Francis, Buffalo, N. Y. "Iridocyclitis: Clinical Course and Complications." Dr. Walter R. Parker, Detroit, Mich. "Iridocylitis: Treatment." Dr. J. D. Dorsey, Wichita, Kas. "Tuberculosis of Upper Air Passages." Dr. Emil Mayer, New York, N. Y. "Cancer of the Larynx." Dr. John F. Barnhill, Indianapolis, Ind. "Rational Treatment of Syphilis." Dr. Udo J. Wile, Ann Arbor, Mich. "Lesions of the Skin Adjacent to the Eye, Ear, Nose and Throat." Dr. John H. Stokes, Rochester, Minn. "Newer Instruments for Ophthalmic Diagnosis and their Practical Significance." Dr. Arthur J. Bedell, Albany, N. Y. "Choriditis: The Anatomy, Embryology and Pathology." Dr. S. Hanford McKee, Montreal, Canada. "Choriditis: Etiology." Dr. W. R. Murray, Minneapolis, Minn. "Choriditis: Ophthalmoscopic Appearance." Dr. George Francis Suker, Chicago, Ill. "The Treatment of Choriditis." Dr. Wm Thornwall Davis, Washington, D. C.

All the papers of the Instruction Course were short, snappy, well rendered and direct to the point. The lantern slides and specimens were well prepared and made the Instructional Course highly received. Four hundred and fifty members were registered and nearly all of them took this course. The Academy has inaugurated a beneficial and instructive course on a high plane.

The writer heard only words of praise for the Minneapolis meeting. The united medical profession of the Twin Cities entertained the visiting members with drives and a smoker in St. Paul, also a dinner at Raddison Inn, sixteen miles out in the country, on Wednesday night, by a charming lake. Lunch was served by the University Cafe every day at a moderate rate. The cafes and hotels were reasonable in their charges. Five beautiful lakes are in the limits of Minneapolis, also the state university. The state capitol is located in St. Paul. The cities are in the same state and join each other. The Physicians and Surgeons office building is well appointed. The Mississippi river has its source in this region. We were invited to the Art gallery, the new Y. M. C. A building and several clubs. Fort Snelling is also located here. Much credit is due our local members for well nigh perfect arrangements made for the comfort and benefit of the Academy. They had the campus so well marked no one could miss the building where the sessions were held Everything was done to make the meeting comfortable and successful. Great credit is due Drs. Newhart, Pratt, Watson, Brown, Nelson, Burch, Murray, Berrisford and all the other good Fellows who did so much to make this meeting a success. The Twin Cities will be remembered and it will ever be a pleasure to look back on the high order of this meeting. The secretary, Dr. Luther C. Peter, and the instructional committee, Drs. W. P. Wherry, H. W. Loeb, Harry Gradle and Meyer Wiener deserve also much credit for getting up a program of such a beneficial nature.

FROM DAY TO DAY

They cost so little, but they count so much,
The fleeting kindnesses along life's way;
A loan to one who's known a better day;
A flower for her, not used to any such
Sweet courtesy; a sympathetic touch
For one who failed his happiness to find,
And for one bound in body and in mind,
A word of cheer as helpful as a crutch.
If we could only keep our visions clear
From just the joys and sorrows of our own,
What richer hoard we'd glean for memory's fund
So hourly, on our usual paths were some
Small deed that brought us heart and soul more near
The poor, the maimed, the lonely and the shunned
—Charlotte Becker in New York Herald.

BITTER SWEET

When I read olden verse whose honeyed tone
Still bubbles sweet as fabled Hippocrene,
Keeping the singer's passion ever green,
Embalmed in words outlasting brass or stone
Then marvel I my secret heart was known
To former singers, who, from earthly scene
Of life's vicissitudes and sorrows keen
Long since departed, have forever flown.
O Singers of Parnassus, have ye found
A shining realm of pure felicity
Beyond this sphere, to match your sacred fire?
Were your sweet songs but echoes of the sound,
(Heard in the rapture of your ecstacy).
Of heaven's life, toward which we all aspire?
—Edward O. Jackson.

Correspondence

ABRAMS AND HIS METHODS

Omaha, Neb., Nov. 15, 1922.

Dear Doctor Fassett:

In the Medical Herald for November, 1922, I read an article by Dr. B. W. Swayze, which contains some statements so amazing that I feel they should not be passed by without at least some mild expression of disagreement. "We are indebted to the exhaustive laboratory and clinical investigations of Dr. Albert Abrams," we read, "for incontrovertible proof that syphilis is the etiological factor present in practically all human diseases. So constantly do the Electronic Reactions of Abrams show this that it resolves itself into, 'No syphilis, no disease.'" Referring to an article by Upton Sinclair in Pearson's Magazine, June, 1922, I find this remarkable piece of medical statistics confirmed. "Cancer and tuberculosis turn out to be consequences of syphilis, either congenital or acquired." Fortunately for our honor and for that of our forbears, he does admit that a great deal of this syphilis is of the "Bovine strain," acquired by the perfectly honorable procedure of being vaccinated.

All this would be very amusing were it not that the Abrams school and its ideas seem to be assuming the proportions of a great popular fad. Fads usually die young and unassisted, but Dr. Abrams' theories have been presented by a man who knows the terminology of medicine and has clothed his theories with such an ingenious fabric of pseudo-scientific reasoning and dramatic technique that some disgruntled or flighty physicians may easily be taken in. Especially when the remuneration is as great and easy as, for the immediate future, it seems likely to be. In fact there are already, as the J. A. M. A. points out, over two hundred physicians who leave leased oscilloclasts. Nearly one hundred of these physicians are on the propaganda files of the journal for their previous interest in some form of pseudo-science, or for advertising. In this list appears the name of Dr. Swayze, author of the above quoted article, as an advertising Men's Specialist.

It would be needless to point out to most readers of this journal the absurdity of Dr. Abrams' claims to a scientific basis for his theories when he has never given us an iota of evidence that cows ever have syphilis and yet bases a large number of his diagnoses on the fact that they must have it. (Your correspondent is willing to have published here the bona fide offer that if any disciple of Abrams will bring to him a cow suffering from syphilis which can be diagnosed by any other method than the ERA he will agree to buy the cow.) It is needless to remind them also that Abrams recently refused in Boston to test specimens of blood from clinical cases which had been tested by other methods, a simple trial of his method to which he had previously refused to submit in California. Or that the only person on whom he demonstrated his method, a perfectly healthy physician, was found by Abrams to be suffering from a streptococus infection, congenital syphilis, tuberculosis and sarcoma.

One more statement, from another article in Pearson's, may speak for itself. "The radio-activity of a mere signature will tell Abrams more within ten minutes about a patient three thousand miles away than his family physician experimenting on the body of the patient, is likely to find out in a lifetime." Surely a convenient little test, and one which makes us sigh for all the lifetimes we have so vainly spent.

It can easily be seen what an appeal this sort of thing would make to the public and the fact that many newspapers have recently opened their columns to the Abrams propaganda makes it seem especially regrettable that an article like Dr. Swayze's should appear in such respectable surroundings as are afforded by the Medical Herald. It is essentially a newspaper article, a collection of general statements without a single case report or any other evidence to back them up. Having appeared in the Herald, however, it has become a part of the "evidence" to which disciples of Abrams may point as showing that "other investigators" are accepting or corroborating his findings.

Sincerely yours,

SANFORD R. GIFFORD, M. D.

Dr. Henry Waldo Coe has presented to the city of Portland, Ore., a bronze statue of Theodore Roosevelt. Dr. Coe was a life-long friend and admirer of the great Rough Rider, and his generous gift to Portland is an expression of his great love for this eminent American and ex-president. The statue shows Roosevelt mounted on a beautiful horse in Rough Rider costume, the work of A. Phimister Proctor, who is also an old-time friend of the late ex-president. The statue is eighteen feet high, weighs fifty-two tons and cost $40,000. Dr. Coe is the editor of the Medical Sentinel.

Important Announcement — The medical profession everywhere will be interested in the announcement that the Abbott Laboratories of Chicago has purchased the Dermatological Research Laboratories of Philadelphia. This is an advance step for the Abbott Laboratories and will give them deserved recognition among the leading manufacturers of medicinal chemicals. It will be remembered that the Dermatological Research Laboratories were the first in the United States to produce Arsphenamine during the war when there was such a scarcity of this article; and these laboratories became well known to the medical profession for their patriotic attitude in developing and manufacturing medicinal preparations in this country. By this purchase of the "D. R. I." products the Abbott Laboratories inherited their prestige. The Abbott Laboratories acquired control of the Dermatological Research Laboratories on November 1, and are continuing to operate them in Philadelphia under the direction of Dr. Geo. W. Raiziss, head of the department of chemistry, and his corps of specially trained assistants. Orders for "D. R. I." products will be promptly filled from the Philadelphia Laboratories or from the home office of the Abbott Laboratories, Chicago, or by any of their branches or distributors.

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

HIGH FREQUENCY PRACTICE FOR PRACTITIONERS AND STUDENTS, BY BURTON BAKER GROVER, M. D.

Author of Handbook of Electrotherapy; ex-president of the Western Electrotherapeutic Association, 919-1920; Fellow of the American Electrotherapeutic Association; the American Medical Association; Medical Society of the Missouri Valley and the Colorado Medical Society. Published by The Electron Press, 1922, Kansas City, Mo., U. S. A.. Price, $4.00.

The subject of Electrotherapeutics will not down. Dr. Grover, lecturer, teacher and practitioner, whose life has been dedicated, synonymously, to this field, gives us another book worth while that students and physicians may read and absorb as they run and practice at their leisure; a book of near 400 pages with 95 engravings, illustrating modalities, methods, technique, indications, contraindications, the most modern equipment, stationary and portable, that actually do the work. The operator, whose finger ends master the details outlined by Dr. Grover, will be a credit to his practice. And the author's masterpiece is chapter five, "Blood Pressure." Drugs do nothing for high blood pressure and if the medical verbalist could mirrorize himself, a la speechifying, he would picturize his joke. Systolic, diastolic and pulse pressures are the internists diagnostic ne plus ultra; yet they may be grouped as meaning nothing alarming but analysis may show an energy index so high that the patient's arterial tree is just as safe as an old auto tire over-inflated on a hot day. The energy index pressure is still an enigma to most practitioners. Dr. Grover makes the treatment of blood pressure by autocondensation, a simplicity. This valuable chapter alone is worth many times the price of the book. S. G. B.

NEW BOOKS FOR YOUR X-RAY LIBRARY

1. Kroenig-Friedrich: Radiation Therapy. Rebman.
2. Alvarez: Mechanics of Digestive Tract. Hoeber.
3. Metzger: X-Ray Technique for Diagnosis. Mosby.

These three new books are reviewed below. They are all interesting. The first is most timely. It is a translation from the German and by an eminent American radiotherapist and carries the principles that govern this newer high-voltage x-ray therapy for malignancy. It is a book that everyone who owns or who contemplate the possession of one of the big machines requires and should thoroughly digest. Those who criticize this method of therapy must have a command of the information to criticize intelligently—perhaps its perusal will change their opinion. Of course, we refer to Schmitz's translation of Kroenig and Friedrich's **"Radiation Therapy,"** which is extensively reviewed hereinafter.

Another important book, Alvarez upon **"The Mechanics of the Digestive Tract"** ranks with other classics such as Cannon's **"Mechanical Factors of Digestion,"** Hilton's **"Rest and Pain,"** and Beaumont's **"Gastric Studies."** While the book seemingly appears as a roentgen publication, it really is a book to jolt the surgeon and gastro-enterologist. It should have general consumption by the profession. The review below will tell you why. Read on.

The third small book upon x-ray technique is a good working compendium for the roentgenologist and his technician. It is of more immediate practical value than the other books and will serve excellently as a "vade mecum" to the new possessor of x-ray apparatus. If you don't think so, there are some more reasons for possessing the book in another paragraph beyond.

The Principles of Physics and Biology of Radiation Therapy—By Dr. Bernhard Kroenig, Professor of Gyneology and Obstetrics, etc., University of Freiburg in Breisgau and Doctor Walter Friedrich, Chief of Difision of Radium Therapy, Unipersity of Frieburg in Breisgau.

Only authorized English edition with an appendix, by Doctor Henry Schmitz, Professor of Gynecology and Head of Department, Loyola University School of Medicine, Chicago, Ill. Price, $8.00.

This is the book upon deep x-ray therapy that the profession of America has been demanding ever since the first German edition. We have had much discussion in the x-ray literature of impressions and observations of visitors to the clinic of the authors at Freiburg.

This English translation by Doctor Henry Schmitz, an American radiotherapist of reputation, carries the principles of the physics and biology of radiation therapy as propounded by Kroenig (now deceased) and Friedrich with appended studies by Schmitz, done at Freiburg.

The 95 pages upon Physical Principles cover definitions of intensity, surface energy, hardness and dose, followed by a detailed description of means of measuring the intensity, hardness of ray and dosage. The authors present careful analyses of various measuring devices but their chief arguments are favoring the iontoquantimeter. The physical chapter concludes with excellent arguments insisting upon the importance of secondary radiations, their determination, influence upon death, dose and necessity of their calculation for the estimation of the radiation dosage and fields.

Part II takes up the Biologic Principles. These investigators used frog larvae to determine a relation between intensity of biologic action and hardness of the ray. Filtrations with copper and aluminum of different thicknesses and comparisons with radium and mesothorium provide pages of desperate interest to all radiotherapists. They then carried their investigations to human skin, cancer nodules and the ovary.

The relation of intensity (voltage) of dosage on the intensity of the biologic action provides some experiments of great value. The biologic observations on the Law of Intermittent Dosage with both x-rays and radium are presented. The influence of factors such as diathermy, heat and secondary radiation provide 30 pages of observations. The sensitiveness quotient of different tissues and the relation of the individual close this section upon the Biologic Principles.

Probably the appendix, which of course, carries the experiments pursued since the first German Edition, provides the meat in the cocoanut for the clinical radiotherapist.

Here we find the investigations of the influence of the Focus Skin distance and the size of the opening on the quotient of the dose. Then the question of secondary ray therapy is discussed. Schmitz provides the chapter upon the Intensity Curves of American radium capsules. This is most important for users of radium, especially in gynaecology.

To those who read this book and who are not familiar with the Attillic touch of the German medical writer, a word of caution is probably advisable. One too easily judges that the formidable pages of tables, curves and definite statements of results, means finality and settles the questions forever. This is the

Attillic touch. But next year will provide more observations by Americans, French and other Germans and it will be found that this question of deep radiation therapy is no more settled than the bacteriology of measles or scarlet fever or the cure of hay fever and asthma.

The Mechanics of the Digestive Tract—By Walter C. Alvarez, M. F., Assistant Professor of Research Medicine, University of California Medical School. Based on the First Caldwell Lecture, "Peristalsis in Health and Disease," Delivered before the American Roentgen Ray Society, Minneapolis, Minn., September 16, 1920. Price, $3.50.

Alvarez presents gastro-intestinal physiology as attractively as Wells outlines the history of the world. One might say that encyclopedias give us information in a dry fashion which we must piece together ourselves and Wells gives us the same information properly correlated and digested in the manner of the best-selling novel. Now Alvarez comes along to provide us with a readable story of abdominal physiology and pathology. The reviewer actually found it difficult to stop at midnight in the continual page by page reading of this monograph from the preface to the bibliography.

Alvarez puts together, in most attractive phraseology and allegory, the experimental studies of Pavlow, Baylis and Starling, Cannon, Carlson and his own original observations, so that the clinician obtains a viewpoint of most practical value.

It forces the reader to the observation that this physiologist (Alvarez) has the human touch along with his cold scientific perspicacity. Where have we had a physiologist who could describe rush waves of material in the small intestine thusly: "Often as one bolus moves forward another moves down to take its place, much as the players in a baseball game shift when the bases are full and the man on third goes 'home.'"

The reviewer apologizes for this spasm of ecstacy upon what should be one of the six best medical sellers of the century and will now try to tell you what the book is about.

It takes up the peristalsis of the gastro-intestinal tract and its variations to the extent of antiperistalsis. It explains Alvarez' original gradient theory of the gastro-intestinal musculature. It provides a critical analysis of the autonomic, myogenic and gradient theories. It explains Auerbach's plexus and Keeth's ring in familiar terms.

The Chapter headings are as illuminating as the text and therefore, we copy them as follows: I. The Autonomy of the Digestive Tract; II. The Myogenic Nature of the Rhythmic Contractions and the Functions of Auerbach's Plexus; III. The Smooth Muscle of the Gastrointestinal Tract; IV. The Different Types of Peristaltic Activity; V. Gradients; VI. The Underlying Basis of the Rhythmic Gradient; VII. Other Related Gradients; VIII. Graded Differences in the Stomach Wall; IX. Practical Applications of the Gradient Idea; X. Reverse Peristalsis and It's Symptoms; XI. Objections and Difficulties;

Note.—Errors and omissions in the minutes should be reported to the secretary by members noting any discrepancies. The papers will all appear in the Herald.

XIII. Technical Methods and Apparatus.

The sub-headings of Chapter X. upon Reverse Peristalsis are quoted to indicate the practical applications which Alvarez promotes for consumption of every physician and surgeon. These sub-headings are: Vomiting, Regurgitation, Heart-burn, Belching, Nausea, Coated Tongue and Foul Breath, Feeling of Fullness after Beginning to Eat, Globus, Hiccup, Biliousness.

You will be using the information in this book ten years from now because it will filter into the practice of medicine gradually and through many medical writers who will dilate, ream by ream, upon simply the facts as Alvarez presents them. Why not become one of these pioneers in applying these facts by reading this book now? Don't wait for literary tract-walkers to force the facts upon you later. You owe it to your dyspeptic patients to read this book now.

Principles and Practice of X-Ray for Diagnosis—By John A. Metzger, M. D., Roentgenologist to the School for Graduates of Medicine, Medical Department, University of California, Southern Division, Los Angeles. Price, $2.75.

Now here's a good little book that contains everything that the x-ray Army Manual does without the army red tape. It starts right in to tell you about the influence of time, distance and voltage upon the recording of tissue densities. And then Metzger takes the second chapter to insist upon the values of the Potter-Bucky diaphragm. This is one of the most valuable advances in practical x-ray technique and Metzger realizes this fully. The Bucky principle was recognized years ago but it took Doctor Hollis E. Potter of Chicago to provide the practical application of this and his apparatus is copied by every x-ray manufacturer in the world. He made it simple after you knew how.

Well, this little book tells you all you want to know and everything (apologies to Jennett) about the properly exposed x-ray plate of every part of the body, except its interpretation. And, of course, the interpretation is the easiest part of the game. So why not be satisfied with Metzger's book. You would never have any interpretation without a good x-ray plate and this book tells you the how, wherefore and whence of the plate.

Naturally, anyone can take exposures of the bones of the body. But Metzger tells you how to take gall stones also. Let George (and Leonard) interpret them.

It's a good book. Make a birthday present of it to your technician and don't forget to read it yourself. Let it lay around the laboratory. You are bound to use it. Mosby publishes lots of books but he hit the bull's eye of practicability when he produced this monograph.

(Reviewer's Note: If Hoeber (New York Publisher) sends in some of his Annals of Roentgenology we will have another review of x-ray books next month that will stimulate your pocketbook to excessive excretion.—E. H. Skinner.

Physical Diagnosis.—By W. D. Rose, M. D., lecturer on Physical Diagnosis and associate Professor of Medicine in the University of Arkansas. Third edition, 319 illustrations, 755 pages, 1922. Price, $8.50. The C. V. Mosby Co., St. Louis.

The three editions and three revisions of this book which have appeared in the last five years bespeak its popularity. Primarily the book is for the student and for the busy practitioner. It combines very well physical diagnosis with the physical findings in the commoner diseases of the respiratory and circulatory systems. However, the whole anatomy is considered fully, properly correlating the anatomy, pathology and physical signs. The illustrations are noteworthy and Dr. Rose's book is quite up to standard and worth while.

NOTE.—The Medical Herald's Kansas City office will supply any book reviewed in this department at publisher's price, prepaid. We can also supply any book by any publisher in the world. If an order for two books be sent at any one time, the purchaser will be entitled to a six months' subscription to the Herald. This plan is arranged for the convenience of our readers, and we trust it will stimulate trade in the direction of good books.—Editor.

Medical Melange

PROTECTION AGAINST RESPIRATORY INFLAMMATIONS

In many instances the respiratory inflammations hat affect a great part of the public during the fall nd winter season might be guarded against by the se of agents that will raise the index of tissue re-istance, particularly respiratory tissue. Cord. Ext. l. Morrhuae Comp. (Hagge) is of high utility for he purpose of protecting against these respiratory ilments, through increasing tissue resistance. This od liver oil preparation is extremely palatable and et contains all of the desirable elements of the plain il. For the purpose under discussion, the use of ord. Ext. Ol. Morrhuae Comp. (Hagee) should be egun early in the fall and continued throughout the inter season. Its palatability is such that the pa-ent's stomach does not rebel against its continued se.

INTRAVENOUS MEDICATION

During the past five years there have appeared in medical journals increasing numbers of articles on the subject of intravenous medication. A survey would indicate widespread employment of intraven-ous therapy in clinics and private practice. It is evi-dent that the difficulties and dangers associated with the injection of large volumes, as was carried on as a hospital procedure, have been overcome. In the face of prejudice engendered by the injection of large volumes of extemporaneous solutions, the pharma-ceutical work of Loeser has demonstrated that what was an impractical hospital procedure, could be con-verted to a safe and practical office and bedside technic. Reports on clinical work done with Loeser's Intravenous Solutions in this country and abroad have brought about renewed interest in this more accurate and scientific method of administering remedies. Realizing that intravenous injection is a serious pro-cedure at all times, Loeser has developed methods of standardization that safeguard the patient and physi-cian. Intravenous solutions require a higher standard than any other pharmaceuticals. It is a special field of work that demands specialized attention. The demonstration of the safety and practicability of in-travenous medication will prove of much benefit to the profession. This demonstration could only have been accomplished with standardized, accurate, in travenous solutions. The October number of the Journal of Intravenous Therapy contains many inter-esting abstracts on intravenous medication from American and foreign medical journals. If you have not received your copy, write in for it. Journal of Intravenous Therapy, 100 West 21st Street, New York City.

THE ACTION OF FREE IODINE

Free iodine does not destroy tissue whether given by the mouth or hypodermically.

It can be given with perfect safety in as large doses and for such periods as may be necessary to neutralize toxins, raise the resistance and re-establish elimina-tion.

Burnham's Soluble Iodine is such a product and that is why such positive and often brilliant results have followed its use in the infectious diseases.

It is the logical treatment for influenza and pneu-monia, and all cases of mixed infection, since as a free iodine, it exerts a most powerful action in stim-ulating cell and glandular activity, thus combating the antiferments and oxidizing toxins.

Hospital and private records for many years have shown a remarkably high percentage of recovery in such cases.

Iodine in a free state—not the salts, is what pro-duces the results desired. No other form of iodine exhibits to such high degree the same powers of pro-found stimulation.

Do not overlook this powerful agent in any field where the therapy of iodine may be indicated.

THE NERVOUS DISTRESS OF ALCOHOLISM

At the present time, in many instances, the nervous symptoms following indulgence in alcoholic beverages, due to the inferior liquors available, are of the severest type. The nervous system sags badly and the pa-tient is markedly unfit to perform his ordinary duties. It is in just such cases that Pasadyne (Daniel) serves a most useful purpose. Possessing sedative proper-ties of high potency Pasadyne (Daniel) may be used with every expectation of satisfactory results. It quickly and safely secures for the patient rest and sleep and aids materially in restoring the equilibrium of the nervous system. Pasadyne (Daniel) may be pushed without fear of causing depression or the other untoward effects so frequently following the use of other sedatives. Its therapeutic potency may be relied upon. Pasadyne (Daniel) is merely a concen-trated tincture of passiflora incarnata. A sample bot-tle may be had by addressing the laboratory of John B. Daniel, Inch., Atlanta, Ga.

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It happens in many cases that no other drug will serve in opium's place. Also in some instances it must be continued. The objectionable features that attend the use of opium make one give pause before beginning its use, particularly if it must be continued. It is when facing such a condition that the careful practitioner will turn toward an opium preparation that subjects the patient to a minimum of evil effects. A preparation that offers all of the advantages of of opium and yet at the same time is free from some of its disadvantages is Papine (Battle). Papine (Battle) is an opium preparation subjected to certain processes of manufacture that eliminate some of the disagreeable effects of opium. Another advantage of Papine (Battle) lies in the fact that the patient does not so easily find out that opium is being used as he would in the event of the employment of hypodermic injections of morphine When you need an opiate, try Papine (Battle), especially if it must be continued for a long period. The patient is saved much of opium's disagreeable effects.

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It is a pleasure to announce to our readers, many of whom used "R. & G." with such good results before the war, that this excellent water may now be obtained in Kansas City. A new company, with ample capital, has been organized under the name of the Austin Mineral Water Co., with a sales and distribution headquarters at 317 East Tenth Street, Kansas City. To those physicians who are acquainted with "R. & G.' we need add no encomium of praise; to those who have not given this water a trial, we would simply say "Read the analysis," and compare it with the famous Sprudel of Carlsbad. The egency will gladly furnish any reputable physician with water for a clinical test in any case where its use is indicated.

LAXATIVES REPLACED BY SCIENTIFIC METHOD

Just as expanding scientific knowledge has made seem incredible the old, careless days of indiscriminate blood-letting, so is the wide use of laxatives and cathartics appearing more dangerous in the light of newer knowledge.

Modern practitioners are prescribing Nujol (petrolatum liquidum) for intestinal stasis and resulting disorders. The efficacy of Nujol lies principally in the close resemblance of its action to that of the lubricating mucus secreted in the intestines. This lubricating mucus is usually deficient in constipated persons. Nujol takes its place, lubricates the intestinal contents and so assists their expulsion from the system.

The makers of Nujol have on hand authoritative literature prepared by physicians dealing with constipation and its sequelae. Any of these booklets, with sample, will be sent on request to Nujol Laboratories, Standard Oil Co., (New Jersey), 44 Beaver Street, New York.

The United States supreme court decision that municipalities have the right to enforce ordinances designed for the protection of the public against epidemic diseases has attracted widespread interest. The court held that ordinances requiring adherence to health rules are intended to prevent the spread of communicable and dangerous infection and that they were reasonable.

The case at issue originated in Texas and had to do with requirement for vaccination against smallpox

One of the leading newspapers of the country commenting on the court's rule, says that it may be assumed that it would apply with equal force to inoculation against typhoid fever and possibly to adminis

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ration of toxin-antitoxin as an immunizing agent against diphtheria.

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The statement of the newspaper editor quoted above is significant of the fact that the time is not far distant now when protective inoculation against diphtheria will have its accepted household place with the present required vaccination against smallpox, and that diphtheria will then become as rare a disease as smallpox is at present.

The efficiency of medical performance in these proved measures will depend very largely upon the selection of products. There must be for the Schick Test and Diphtheria Toxin-Antitoxin Mixture packages the same kind of dependableness as is essential for diphtheria antitoxin and smallpox vaccine virus. The Lilly products are said to give the physician the best possible service in use, a service which starting with potency and accurate standardization, is continued in ease and handling of the packages, and is finally backed and sustained by superior distribution service.

This firm has prepared an excellent booklet on Diphtheria Prevention which commends itself to the reading of physicians. It will be sent free upon request.

USE OF SUPPOSITORIES

What doctor does not have occasion to use something in the form of a suppository? In spite of oft repeated dictum that almost every case of hemorrhoids can be cured only by more or less surgical means, there occurs in the practice of every doctor a considerable number of cases in which the use of a suppository is logically indicated. The ideal suppository should be bland in action, yet decided in effect. It should exert astringent action and to this should be added a styptic effect because in hemorrhoids bleeding is common.

There are a number of suppositories offered for professional use. It is not too much to claim that of these Micajah Suppositories have been found to be eminently serviceable. They contain no narcotic drug. Their action is soothing and healing to a degree and their use can be continued almost indefinitely. Furthermore, Micajah Suppositories were suggested by the success which followed the introduction of Micajah's Medicated Wafers, the latter intended for use in the treatment of minor gynecological ailments. The same elements which enter into the composition of the wafers are contained in the suppositories, to which have been added other indicated agents which render the suppositories prompt in action and prolonger in effect. To those who have tested Micajah Suppositories clinically it is unnecessary to speak a word of praise. To those who have not it is reasonable to urge that they send for literature and samples of the product and make a clinical trial in suitable cases. The results can be easily forecasted. The physician who tries these suppositories with any degree of care soon becomes a constant user of them. For samples, literature, etc., address the makers, Micajah & Company, Warren, Pa.

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IN A HOSPITAL

By Ignatius I. Murphy, Author of "Behold the Flag,"
St. Elizabeth's Hospital, Lincoln, Neb.

On beds of pain the stricken lie,
The hours passing slowly by,
While Life and Death their vigil keep
For some must die and some must weep.

Minist'ring angels come and go,
Black-robed Sisters pass to and fro,
Of calming touch and soothing word,
No gentler voices ever heard.

The busy world beyond the pane
From which to these white cots we came
Recks little of the absent one,
The ranks are filled e'er day is done.
A moan, a groan, the Spirit's nigh
A pallor strange, the last, last sigh,
Fond hearts breaking—from anguished bed,
Perhaps to God a soul has sped.

But doctor, nurse and chaplain's prayer
A hopeful, healing message bear
And many walk the sunlit way
Of health and strength in brighter day.

Oft souls are saved in House of Pain,
For vows are made to live again
In better lives and kinder deeds
By suff'ring ones in hour of need.

Helpless, indeed, humanity,
Face to face with eternity,
Yet House of Pain, affliction's rod,
May serve for all as House of God.

MEDICAL LORE

¶ Hippocrates was thoroughly conversant with the treatments as practiced today by osteopaths and chiropractors. His knowledge of the spine and spinal nerves is no more than equaled today. As a surgeon he operated on the skull with a trephine; opened the chest in empyema and hydrothroax. He was a climatologist of no mean degree; he was authority on Public Health and Sanitation. He practiced orthopedic surgery and treated many patients at the Temple (hospital). He removed superficial cancer with the knife and cautery. He was a believer in orthodox medicine. The following is quoted from his writings: "When doing everything according to directions, although things may not turn out agreeably to indications, we should not change the treatment to another while the original appearance remain."

—o—

¶ Even in his day phthisis was considered infectious.

—o—

¶ He employed a vaginal speculum in examinations of women and treated uterine maladies with vaginal suppositories. There is no account of his advising the use of the "whirling spray," but probably he had "something just as good."

—o—

¶ He used vaginal and rectal irrigations by means of a fountain syringe made of a wooden tube and a bladder from some animal.

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The Mellier Drug Company announce a reduction in the price of the Tongaline Preparations and Ponca Compound from $5.00 a dozen for the small size to $4 50, from $10.00 a dozen for the large size to $9.00, retail prices now 50c for small and $1.00 for large; Tongaline 5-pints reduced from -6.60 to $6.00.

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—*Kirschner: American Review Tuberculosis, July, 1922.*

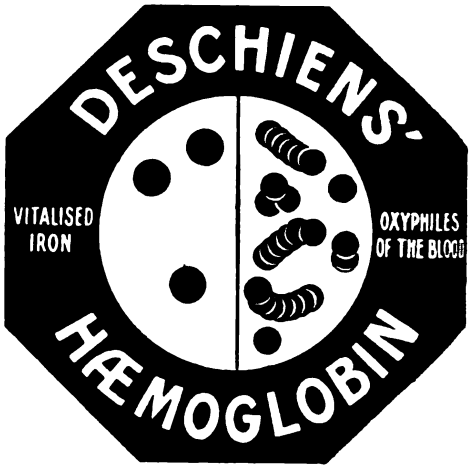
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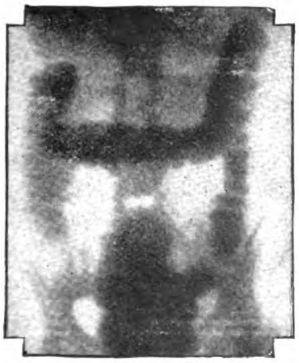
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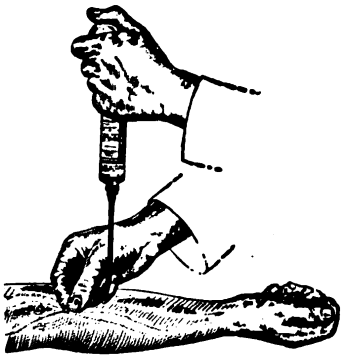
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PNEUMONIA

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l. XLII JANUARY, 1923 No. 1

Original Contributions
(EXCLUSIVELY FOR THE MEDICAL HERALD)

HE VALUE OF URETEROPYELOGRAPHY IN DISEASE OF THE URETER AND KIDNEY PELVIS

OHN MILLS MAYHEW, A. M., M. D., F. A. C. P.
ARTHUR L. SMITH, A. B., M. D., M. Di.
Lincoln, Neb.

History

FOLLOWING the improved technique in roentography and the development of cystoscopic instruments many obscure normalities in the abdominal cavity were sily recognized. However, many abnormal nditions in the ureter and pelvis of the kidy remained undiscovered until pyelography d ureterography were introduced and perted. This also made it possible to exclude any shadows which otherwise might be condered ureteral, pelvic and bladder calculi.

Schmidt and Kollischer[1] in 1901 inserted sed wire into the ureter to outline its course. olker and Von Lichtenberg[2] in 1906 injected llargol into the ureter and pelvis. Since is substance is radio-opaque, it casts a adow which outlines the pelvis of the kidy and the ureter. Following this many subances have been used such as argyrol, silver did, electrogol, gas. oxygen and air. Later orium nitrate was introduced by Burns[3]. inally, Cameron[4] reported the use of iodids ith apparently no harmful results. Since me of these drugs caused destruction of the ssue and others were very irritating most them were necessarily discarded. Personly, we are using twelve per cent sodium did with entirely satisfactory results.

Technique

The examination is conducted about as follows:

1. History and complete physical examination.
2. Roentgram of the abdomen before cystoscopic examination.

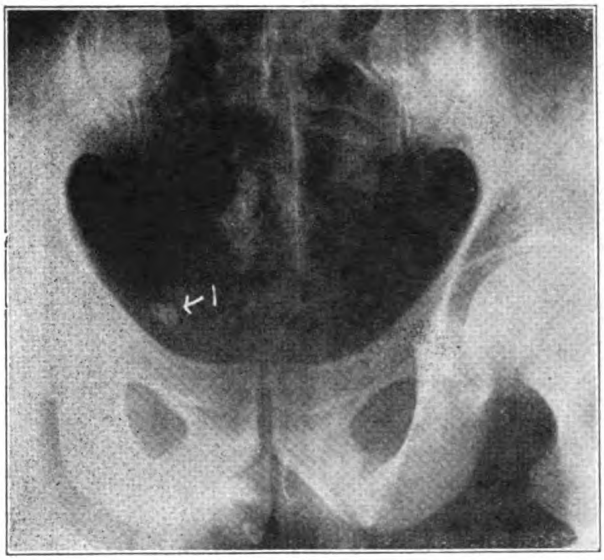


Fig. 1. Are these stones (1) in the bladder or ureter?

3. Cystoscopic procedure and then ureteral catheterization, care being taken to note the following:
   a. Ureteral openings.
   b. Resistance or obstruction on the passing of the ureteral catheter.
   c. Abnormalities in the urine from each kidney.
   d. Capacity of each pelvis.
   e. Rate and rythm of flow from each kidney.
   f. Function of each kidney.
4. Roentgram with radio-opaque ureteral catheters in place.
5. Roentgram after injection of sodium iodid solution in ureter and pelvis.
6. Air may be injected instead of sodium iodid solution.

Conditions Not Shown by the Roentgen Ray

In the following conditions the roentgen ray alone is of no diagnostic value:

Read before the Medical Society of the Missouri Valley, St. Joseph, Mo., September 21, 1922.

1. Small tumors in the kidney pelvis.
2. Hydronephrosis.
3. Pyonephrosis.
4. Pyelonephritis.
5. Destruction of calices.
6. Essential hematurias.
7. Hydroureter.
8. Pyoureter.
9. Ureteral angulations.
10. In about twenty per cent of the ureteral and pelvic calculi.
11. Congenital anomalies.

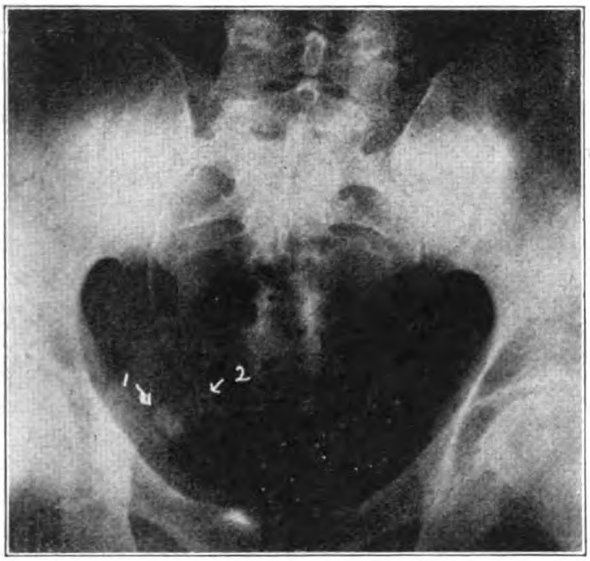


Fig. 2. Same as Fig. 1. Shows ureter (2) about an inch from phleboliths (1).

Diagnosis by Combined Methods

When the X-ray is supplemented by cystoscopic examinations and by ureteropyelography it makes the diagnosis of the foregoing abnormalities almost absolute.

The diagnosis of the pathological conditions in this region depends especially upon the physical, roentgen and cystoscopic examinations. We believe that a complete physical and laboratory examination is necessary in every case and afterwards the special areas should be investigated if indicated. Any one method alone is of little definite value.

The principal symptoms of ureteral and pelvic calculi, colic and red blood cells in the urine, are often simulated by ureteral strictures and angulations. The true condition present is easily shown by ureteropyelographic and cystoscopic examinations.

Tumors in the kidney pelvis show an encroachment upon the pelvic area. In hydronephrosis and pyonephrosis dilation of the pelvis and destruction of the calices are present. In ureteral angulation the outline of the ureter shows a kink and in a stricture the point of contraction is shown clearly and there is always a dilated area above it.

The combined examinations described ha corrected many incorrect diagnoses of pat ological conditions of the gall tract, appendi uterus and appendages, gastrointestinal tra and the genitourinary tract. On the oth hand, if the trouble is in the first four regio the uretero-pelvic system will be normal.

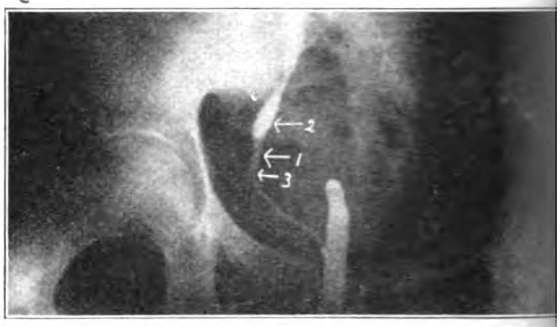


Fig. 3. 1. Ureteral calculus. 2. Dilated area ureter above calculus. 3. Ureteral catheter touchi calculus.

Differential Diagnosis

When a radio-opaque substance in the u tero-pelvic region casts a shadow upon plate it is usually one of the following:

1. Ureteral calculus.
2. Pelvic calculus.
3. Phlebolith.
4. Calcified lymph gland.
5. Gall stone.
6. Enterolith.

Pyelographic, ureterographic and cys scopic methods with the help of the rad graphic ureteral catheter are absolutely nec sary aids to the roentgen ray in the diff ential diagnosis of the foregoing conditions. the shadow is due to a calculus in the ure or pelvis it will be in the line of the inser ureteral catheter; if air or oxygen be inject the shadow will be intensified and surround by a dark area; and if the ureter and pelvis filled with a sodium iodid solution the c culus shadow will always be blotted out in t roentgrams taken from both the lateral a antero-posterior positions. If the shadow due to a phlebolith, calcified lymph gland g stone or enterolith, the above conditions w not be fulfilled. Many of the calculi whi are not radio-oqaque will cast a shadow af several injections of collargol, also the w tipped catheter will be scratched, obstructi more or less will be present and a dilated ar above the stone is usually shown in the uret rogram.

Case Reports

I. Mrs. F., 34 years.

Pain in the left side of the abdomen has be the predominating symptom and it has nev been absent during the past five years. Fi

ominal operations have been performed ring this period but the pain has continued changed. A surgeon had finally decided to nove the left kidney because a roentgenolo- t reported this organ as "much enlarged." ir examination revealed a perfectly normal t kidney but a pyonephrosis of the right lney. The ureterogram showed a stricture d an angulation of the right ureter. The elogram showed a destruction of the calices d a much dilated right pelvis. The function the right kidney was practically nil. The n in the left side disappeared after the sec- d treatment of the right ureter and kidney vis. This was a case of referred pain and left kidney was enlarged due to the neces- of assuming the function of the almost ally destroyed right kidney. Pain, tender- s and enlargement are not unusual in a nor- l kidney which must double its excretory ction and because the X-ray shows it to be rged is no reason for condemning it. Had left kidney been removed on account of the n and enlargement, the patient of course uld have died of uremia in a few days.



. 4. 1. Ureteral angulation. 2. Dilated ureter.

II. Mr. R., 38 years.

He has suffered with severe pain in the right le for two years and passes blood in the urine times. During these periods morphine is cessary for relief. A calculus in the right eter was reported by a roentgenologist. This agnosis was based upon the presence of two adows in the region of the lower right eter. (Figure 1.) In the cystoscopic exam- ation the ureter was found to be normal. diagnosis of tuberculosis of the right kid- y was made after finding red blood cells and bercle bacilli in the urine. This was con- med when a guinea pig was injected with urinary sediment and later developed tuber- lous glands. The roentgram (Figure 2) with the radio-opaque catheter in place revealed the fact that the ureter was at least an inch from the shadow casting substance. The shadows were due to phleboliths. The pain was probably due to the contractions of the ureter in an attempt to force the blood clots into the bladder. This patient has pulmonary tuberculosis.

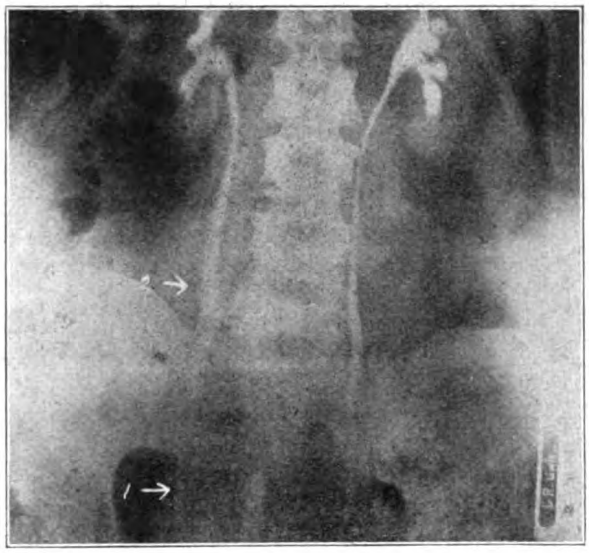


Fig. 5. 1. Radio-transparent ureteral calculus shows as dark notch. 2. Dilated ureter.

III. Mrs. M., 56 years.

Intermittent pain has been present in the right lower abdomen during the past three years. Sharp pains, rigidity of the abdominal wall in this region and a temperature of 103 degrees were the principal symptoms during these attacks. Several roentgrams were taken with negative results. A diagnosis of appendicitis had been made and she was advised to have her appendix removed. When first we saw the patient she had a temperature of 104 degrees, rigidity and pain in the right lower abdomen, and a large number of pus cells were present in the urine. The plain roentgram was negative. The cystoscopic examination revealed a normal bladder with the exception of a red edematous area around the right ureteral opening A small catheter could be inserted only one-half inch into the right ureter, pus and red blood cells were found in the urine, and scratches were present on a wax tipped catheter. It was evident there was a stone in the ureter and a pyelitis and ureteritis were present. Since collargol will often make a radio-transparent calculus opaque, it was injected into the ureter three times after she had recovered from this attack. The next day sodium iodid solution was injected into the ureter and the ureterogram (Figure 3) showed a stone present at the point of ob-

struction and above this was the dilated area which usually accompanies this condition.

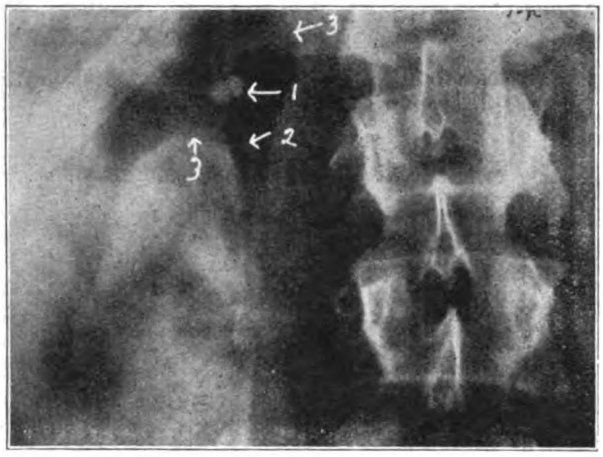


Fig. 6. 1. Renal calculus. 2. Ureteral catheter. 3. Outline of renal pelvis filled with air.

IV. Mr. M., 62 years.

He complains of evanescent pains and soreness in the upper right abdomen. These have been present about two years. His condition has been diagnosed as chronic cholicystitis and duodenal ulcer. Our examination was negative with the exception of an angulation (Figure 4) of the right ureter with a dilated area above it. Pus cells and colon bacilli were found in the urine from the right kidney. He was evidently suffering from a pyelitis caused by a poor ureteral drainage. The symptoms disappeared after treatment.

V. Mr. F., 22 years.

Three years ago while in France he had a sharp pain in the appendix region and was told there was some albumen in his urine. He has complained of these symptoms more or less until the present time. He was discharged from the army with the diagnosis of neurasthenia. Due to his nervousness and inability to work when in pain he lost one position after another. The examination revealed a very nervous patient and he made the cystoscopic investigation very difficult. There was an obstruction of the ureter and a dilation of the ureter above it. At this time he was called by the government for re-examination. Several plain roentgrams were taken but since they showed nothing abnormal the surgeon decided the ureteral calculus had passed. He returned to us about three months later and the abnormalities as we had found them were still present. After dilating the ureter with a Bradford Lewis dilator the stone was passed and he immediately assumed a normal appearance in every way and has not missed a day's work since (about six months). Incidently, the army officials at headquarters do not see fit to change their diagnosis and grant his compensation.

Conclusions

There are many abnormalities in the uretero-pelvic system which can not be shown by roentgen examination alone.

Most of these conditions can be definitely and accurately diagnosed only by ureteropyelography when combined with a thorough physical and cystoscopic examination.

The roentlogical examination of the uretero-pelvic system without the aid of an injected radio-opaque substance is of about the same value as the roentgen investigation of the gastro-intestinal tract without the ingestion of the barium meal.

This method, if properly controlled, carries no danger to the patient and prevents many needless operations on the appendix, gall bladder, genitourinary tract and the uterus and its appendages.

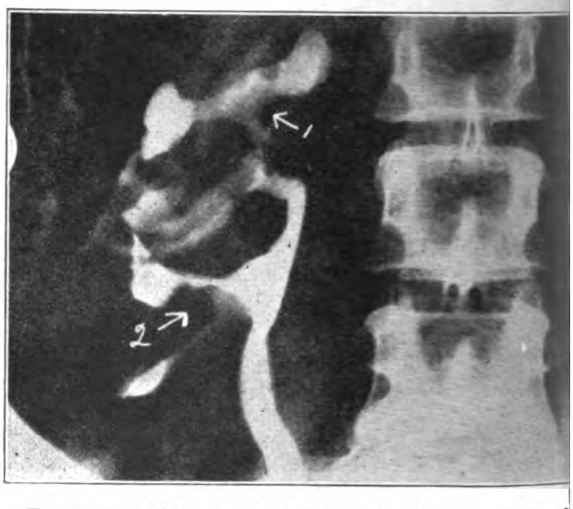


Fig. 7. Double renal pelvis. 1. Upper pelvis. 2. Lower pelvis.

Finally, we believe that only by a combined physical, cystoscopic and ureteropyelographic examination can an accurate diagnosis of the abnormalities of the uretero-pelvic system be made and proper treatment instituted.

Our thanks are due to Doctors Carl Kail and Earl N. Deppen for their painstaking and time consuming roentgraphic and fluroscopic examinations.

BIBLIOGRAPHY

1. Schmidt and Kollischer—"Radiographie an sonderierten Ureteren und Nieren," Monatsberichte f. Urol., 1901, VI, 427.

2. Volker, F., and von Lichtenberg, H.—"Pyelographie (Roentengenographie des Nierenbeckens nach Kollaragolfuellung)," Munchen. Med. Wochenschr, 1906, L, III, 105-107.

3. Burns, J. Edward—"A New Agent for Pyelography: Preliminary Report," Journal of the A. M. A., June 26, 1915, p. 21-26.

4. Cameron, Donald F.—"Aqueous Solutions of Potassium and Sodium Iodide as Opaque Medium in Roentgenography: Preliminary Report," Journal of the A. M. A., November 16, 1918, p. 754.

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SIGNIFICANCE OF THE SPECTRAL LINES

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Department of Biophysical Research,
Victor X-Ray Corporation.

THE discovery of the law of gravitation is not the only obligation for which science is indebted to the genius of the im ortal Newton. His researches in optics were paramount accomplishment that served to ster increased knowledge in two branches of quiries; first, astrophysics, the study that is to do with the configuration and constitu- on of celestial bodies; and, secondly, the udy of atoms and molecules which may prop- ly be described as a science of atomic astron- ny in which atoms and electrons play the role suns and planets.

Newton's classical experiment is well known. consisted in passing a beam of white sun ght through a prism of glass from which re issued an irised band containing a blend olors from red to violet, like a rainbow, only h more effulgent and pure. According to ton the colors were described as merging preciably one into the other, each color be deviated by the prism according to a well rned and quickly determined law.

he historical experiment was carried on by itting a pencil of sunlight through a round in the shutter of a dark room and permit- the light to pass through the prism and fall a screen. He then perfected the experiment d obtained a better result by changing the nd hole into a long narrow slit; and that rangement became the prototype of the re- arkable modern instrument generally known the spectroscope. It is remarkable that for entury after the original experiment of New- n, physicists still worked with a spectrum ob- ined in this same primitive and defective anner. Indeed, some of the early records of periments with the spectrum speak of the hite portion which we know now to consist unchanged sunlight that was admitted to e screen through crass imperfection in the ethod of experiment.

If we repeat Newton's experiment today us- g a lentil-shaped lens and a prism with di- ensions pursuant to the laws of optics, the ectrum of sunlight is found to consist not ly of the merging colors of the rainbow, but so of certain black bands which were discov- ed by Frauenhofer in 1817. As Newton did ot see the Frauenhofer bands, it must be at- ibuted to the imperfection and defection of s apparatus. Yet, this oversight retarded the ogress of science and the development of ectroscopy for just one century.

Frauenhofer himself engraved a solar spec- um with every minute precision that his digi- tal skill permitted; and he represented the black bands which were most apparent by letters from A to H. He discovered these same bands as brilliant lines of light in the illumination from a candle, the flame of an alcohol lamp and the glimmer of an oil lamp, but he failed to suspect the significance of this peculiarly opposite finding.

On the original chart prepared by Frauenhofer, the band designed by the ray D is a doublet. We know definitely that the presence of this doublet identifies the metal sodium, and it may be detected even with the smallest spectroscope.

Subsequently, greater progress was made through the aid of a new instrument, the development and construction of which we again owe to Frauenhofer; the optical grating.

The first grating of Frauenhofer contained a great number of finely ruled lines which were parallel and equally spaced one from the other. Being the result of handiwork they were necessarily somewhat imperfect. Later, Frauenhofer traced lines by ruling with a diamond a thin film of gold that he had deposited on a glass plate. Through the use of these gratings we are enabled to analyze light into its colored components, just as we are by means of a prism; but more than this, we can also indicate the actual wave lengths of any individual region, which may then be expressed by a definite number. Through the use of the grating the numerous bands in the solar spectrum, some broad and some quite fine, were likewise revealed; but their significance remained a complete enigma for Frauenhofer. A solution of the mystery was not found until 1859, when it was revealed by the work of Kirchhoff and Bunsen.

Kirchhoff proved that the illuminated bands, which were present in the spectrum of the vapor of an incandescent metal, occupy exactly the same place as the black lines of Frauenhofer when observing sunlight through a spectroscope.

This explained the meaning of the black lines of Frauenhofer. There could no longer be any doubt that the exterior photosphere of the sun contains metallic vapors which are traversed by white sunlight emitted by the solar nucleus. The identification of these vapors could therefore be made by comparing the solar spectrum with the spectra of other luminous sources or other metallic vapors of incandescent metals examined in a laboratory.

It is obvious that the work of Kirchhoff and Bunsen commands an everlasting admiration. Through it, it has been possible to determine definitely the chemical composition of the sun, of the fixed stars and nebulae, despite the many millions of years or centuries that it requires for their light to permeate the incomprehensi-

ble vastness of space before it reaches our earth.

b

Bunsen and Kirchhoff proved that each element possesses a characteristic spectrum which is apparently related to the atomic weight. It was this discovery that made spectroanalysis a reality. If there is introduced into a flame a mixture of various metallic salts, each metal emits its characteristic spectrum. This serves as a means for identifying the presence of any known metal. For example, if the spectrum reveals a brilliant band in the yellow, which has been designated D, it is a spectroscopic proof that the metal sodium is present.

A new period in spectroscopy was inaugurated in 1882 through the brilliant work of Rowland at the Johns Hopkins University. Rowland recognized that the key for a good grating rested in the perfection of the dividing engine by which the rulings were made. He conceived the idea of ruling gratings on a spherical mirror of speculum metal. In this manner, since the mirror was concave, the rays are focused without the additional use of a lens. The mathematical possibilities of the concave grating was completely investigated by Rowland, and this instrument has since proved to be one of the greatest inventions ever made in spectrography. Michelson subsequently advanced even still further than Rowland through the construction of his interference apparatus, in which the mechanical perfection is astounding; he succeeded in solving various fundamental questions in physics; finally he also occupied himself with the manufacture of gratings.

What is actually called spectroscopy was, at the beginning, only a method of spectroanalysis; though it soon became really an important method of chemical analysis. The exquisite sensitivity of spectroscopy has furnished a means of distinguishing with exceeding precision the details of material constitution; so that today, the science of spectroscopy is foremost and cogent among the methods that enable us to study the properties of atoms and molecules.

c.

In studying the spectrum of different elements it has been repeatedly observed that the spectral lines are arranged in a somewhat regular fashion. In the case of hydrogen gas the arrangement is much more simple than exhibited by the spectrum of other elements. Balmer established a simple formula which permitted an indication of the portions occupied by the lines in a spectrum, or, as this phenomenon is now termed, the spectral series. Later, Rydberg, Kayser, and other physicists have announced formulas for the spectral series of a large number of elements.

Zeeman, in 1896, discovered that under t influence of a magnet, a spectral line broade and may be decomposed into several comp nents. It is remarkable that the magnetic fect of the spectral lines, which Zeeman pro in the laboratory, was in reality predicted theory by Lorentz, who supposed that in ea atom there is an electrified vibrating partic an electron, which causes the emission light. The magnetic veil simply ini ences the electrified particle in the ato and thereby modified the emitted lig Lorentz was able to predict that electrified particles were electrically charg and the results of the distance se rating the component lines in a spectral trip was an index of the electrical charge and mass of the particle. These hypothetical ductions became actual realities under the usual studies of Thompson and Lenard, w studied the production of electrons in an X-r tube. The mass of an electron and its elec cal charge is extremely small. The mass 1/1840 less than that of an atom of hydroge

The existence of spectral series, and the p nomena that they exhibit under the influe of magnetic forces, reveals one of the very portant mysteries of nature. Rutherford established a theory of the constitution atoms which leans on numerous proved periments. According to this theory, at consist of a nucleus representing a posit electrical charge, around which nuclei th are a number of negatively charged electr that are retained in their orbits by the attr tion of the positive nucleus. This concept atomic structure is immediately visualized conceiving an astronomical system in wh the sun represents the central positive nucl and the revolving planets represent the ne tive electrons.

In applying the quantum theory of Pla to the electrons that vibrate in the Rutherf atom, Bohr arrived at an explanation that counts for the spectral series of lines. In atom of hydrogen, according to Bohr, e electron encircles the positive nucleus in an bit that has a definitely determined radius

The emission of light occurs when a mo electron leaps, for reasons still unknown to from one orbital path to another. So long an electron continues in the path of its or there is no emission of light.

It would seem that Bohr's conviction c flicts with the established concept of class electrodynamics; yet, this theory is elegant offering a simple explanation of the laws g erning spectral series. Indeed, on the basis this conjecture, Bohr predicted that in spectrum of hydrogen gas there must exis series of lines in the Ultra-Violet region;

ıter, Lyman, in his studies on the spectro-
:opy of Ultra Violet, definitely discovered the
ydrogen series that had been predicted.

A new development of the theory of spec-
'al series was also furnished by Sommerfeld,
ho conceived that the electronic orbit was elip-
cal, and that in its motion the mass of the
lectron varied with the velocity. This intro-
uced the relativistic mechanism into the ques-
on; which seemed to be required because the
elocity of electrons in an atom is not small as
ompared to the velocity of light.

The direct confirmation of the Sommerfeld
ieory was furnished by researches particularly
scribed to Paschen, who studied the spec-
'um of luminescent helium. When a strong
lectrical discharge is occasioned in a tube con-
ining helium and the trace of hydrogen. Fow-
:r observed that the series of lines, according
) the formula of Bohr, belong to helium and
ot to hydrogen as had been predicted.

All these lines that Fowler discovered were
tudied under critical and minute spectroscopic
nalysis by Paschen; and from the results ob-
ained from the spectrographs produced by
'aschen, Sommerfeld's theory was confirmed in
ts details.

Bohr's theory of the spectrum has furnished
strong degree of probability to the atomic
ıodel perfected by Rutherford. There are cer-
ainly many difficulties that need yet to be
vercome, and these are essentially resident in
eing compelled to admit that an electron circ-
ing in an orbit can not emit light. But the re-
iew is sufficient to indicate that the three
ominant theories of modern physics, the the-
ry of electrons, the theory of quanta, and the
heory of relativity are decisive in permitting
comprehensible understanding of the phe-
ıomenon pertaining to the spectral lines.

ANOTHER CONSOLIDATION

Dr. M. M. Smith, who for a number of years
ıas edited the "Medical Insurance and Health
Conservation," has disposed of his journal to
Mrs. Josephine Daniel, who will consolidate it
vith her monthly magazine, "Practical Medi-
:ine and Surgery." The new combination
ournal will be published at Austin, Tex., under
he management of Mrs. Daniel. Dr. Smith
vill be retained as one of the associate editors.
We are sorry to learn that ill health is the
:ause assigned by Dr. Smith for relinquishing
:ontrol of his splendid magazine, and we sin-
:erely hope that a rest from the strenuous
duties of the editorial chair will completely re-
store Dr. Smith to his former health and vigor.
The new journal has our very best wishes, and
under the management of Mrs. Daniel we
predict for it a signal success.

THE PHYSICIAN AND THE CRIMINAL

E. M. HOUSE, M. D.,
Ferris, Texas.

THERE are two classes of physicians—The "Can't be dids" and the "Can be dids". The latter class of physicians are the progressives. The men who have made the science of medicine the most reverenced of all the branches of classified human thought.

I reverence the minister of the Gospel, but I deny to the minister the preferential seat on high. It is the physician above all types of men who most profusely demonstrates, "I am my brother's keeper". The physician respects that obligation from the moment of conception until the soul is requested to appear before the equitable tribunal of justice.

Preventive Medicine is the latest burden placed upon the already heavy laden physician. It has now been made apparent and palpably plain, the criminal is another added responsibility. Each qualified physician is adding his mite to the vast requirement of data necessary in the end to accomplish the result desired.

The slogan will soon be "PREVENT THE CRIMINAL" and "CURE THE CRIMINAL".

The child is the fruit that must be preserved, heretofore there has been lack of co-operation among those persons who have aided and assisted in the welfare of children. Today, as never before, there is being amalgamated one idea, the result of the combined expriences of the Teacher, the Minister, the Layman, the Lawyer and the Physician. All these types of men and women are pleading for reason, for intelligence and for science to control this obstacle to human progress, viz.: The unfortunate child.

Every convict is not a criminal, many an innocent man has been convicted upon circumstantial evidence.

Every America believes in fair play and not one American desires an innocent man to be convicted, but he does want the guilty to receive his just punishment.

I have presented to the medical profession my observations with scopolamin anaesthesia in criminology as a humane "THIRD DEGREE". I did so for the reason I sincerely believed it would assist to prove the guilty, guilty, and the innocent, innocent.

My progress has been greatly inhibited by the impossible claims made by those to whom the theory appealed as reasonable. By the unreasonable assertions of those who maintain it will destroy Judges, Courts and Juries. Such assertions, of course, are illogical conclusions based upon erroneous deductions and misstated facts. By those scientists who know nothing of the anatomy and physiology of the brain.

What are the facts. It is only a humane "THIRD DEGREE" and that is all, nothing less and nothing more. If a suspect tells without coercion and voluntarily the truth, the use of scopolamin would be unnecessary. If a suspect will not talk or what they say cannot be corroborated, then it should be permissable, in important cases, to use scopolamin in preference to the customary third degree some subjects so bitterly complain of.

The object and the desire of peace officers is to control crime and to protect the citizenship. When the appalling figure of dollars to maintain our government is considered, also that over one-half of the expenses of our government is spent for the control of crime, should it not behoove those of us who are tax payers to consider the money-saving advantages of scopolamin in criminology, when scopolamin is no more dangerous than is morphin.

Every man I have heard of who has attempted my technic has made in part a failure. I have not heard of a physician who has said, possibly I do not understand the technic thoroughly. I feel they should because I am not perfect myself. One such physician visiting in Dallas from a northern city, I invited to witness a demonstration. When I talked with him afterwards, he admitted my technic was entirely different from the tests that he saw made, that he did not believe it was possible to make a man so drunk with scopolamin.

When Laocoon cast his spear into the side of the wooden horse, he said, "I fear the Greeks even bearing gifts". That was his swan song. He was a reliable prophet, but he could not win the confidence of the people he desired to save.

When Dr. Gauss said, "The trouble is not dammerschlaff, but to the mistakes made in its name". That was his swan song. Dr. Gauss told the truth because he knew dammerschlaff could not be mastered in less than two years. The medical profession killed "TWILIGHT SLEEP" in less than one year. It is human nature to condemn that which we cannot do, hence the fable of the fox and the grapes. Not being so smart as the average physician, it required four years for me to safely handle a case of twilight sleep.

My swan song is, I guess I will die of old age before the medical profession will permit me to prove or disprove the correctness of my theory. If the American Medical Association had a committee before which every medical discovery could be demonstrated, progress in medicine would be much faster and encouragement would be invited for new discoveries. To explain: There are scattered over the United States, men who are successfully using twilight sleep, every man's technic is a little different. One man's technic is better or superior to all the rest or there may be a good point in each one. To illustrate: When the state of Louisiana appreciated the need of a treatment for malarial haematuria, she spent $15,000 writing to every physician in the state for a report and treatment of each case of malarial haematuria. The statistics were compiled and the results were, a child could have picked out the treatment from the picture. What happened? Every physician accepted the advice of the State Board of Health and "BLACK JAUNDICE" was no longer a very fatal disease.

The skill in using scopolamin in criminology is "not in giving the medicine", but in framing the questions to be understood by the subject. Furthermore, to be able to produce and recognize the House's Receptive Stage. To learn from the tone of the voice if the answer to the question represents the question was understood. To illustrate: One of the test questions given to me by a committee to ask, my subject was: Is your baby a boy or a girl. The answer was a girl. Had I been inexperienced I might have accepted that answer, but the tone of the voice led me to believe he had forgotten the first part of the question (for some reason I cannot explain they will give a foolish answer to a question if they do not understand). In ten minutes I went back over the twenty test questions and I asked: Is your baby a boy. The reply was yes. In ten minutes I went back over the twenty questions and I asked: Is your baby a girl. The reply was no. I turned in the answer as a boy and I was right. I might add the answers to all twenty test questions were correct.

This illustration shows how extreme caution and lots of experience are necessary for the correct handling of scopolamin in criminology.

My observation has convinced me, the state of Texas is selfish. She has made every provision for her own protection, but she offers little help to the poor man. Statistics show it is little trouble and not difficult to convict a man, if he has erred in the past. If defense lawyers were elected by the people and permitted to spend the state's money for evidence, like the elected prosecuting attorneys, it might not cut down the convictions among the rich but it would keep many a poor man out of the penitentiary.

The old saying, "It is hell to be poor" is nowheres better exemplified than in a court house. I ask you, why should a state be more concerned in the conviction of a criminal than she should be in guaranteeing the acquittal of the innocent.

I am not cricising our laws, I am trying to help invite influence enough to pass one more law, that it might strengthen our courts of justice and make the word justice mean ex-

ctly what it says. I perfectly agree with Dr. Losby, of Jefferson City, Missouri, who also dvocates a PUBLIC DEFENDER.

I believe in the third degree, but I advocate humane third degree. I believe in capital unishment, but I believe hanging is a relic and ıould be condemned now that we have the ectric chair. I helped hang a man once. The ›pe did not break and neither did the man's eck. A state should only ask for a man's life nd not reserve the privilege to strangle a man › death. After this man was strangled to eath, evidence was found proving his conten- on on the scaffold that he was innocent. Had ıis man taken scopolamin and his story or evi- ence been investigated, the error might have een prevented.

I most earnestly request the readers of the rticle not to confound the technic required for bstetrics with the method advised to be fol- ›wed in the criminal work. In obstetrics you nly attempt to alleviate pain, if you made a roman as drunk as you should a suspected riminal, you would stop for a while her pains.

The object of using scopolamin in criminol- gy is to rob the mind of its stored events, alled memory, consequently they should be nade totally unconscious to produce an abso- ntely quiet brain. To completely destroy very appreciation of their environment, to liminate every vestige of the "WILL" power, o make it impossible for them to even "THINK", "DREAM" or "REASON", such patient only is completely scopolaminized.

Upon such patients I have proven clinically hat the center of hearing is the first center in he brain to function. The center of feeling s next. The center of sight is next. The cen- er of smelling is last. Also, the center of hear- ng makes the other four centers subservient nd furthermore, the center of hearing can nake the centers of the other four senses func- ion before the special nerve to each of the our centers can make their own center func- ion. (ORIG).

Scopolamin is more selective in its action pon the cerebrum, that part of the brain which the seat of intelligence. The dominating a for the normal functioning of the body. Scopolamin does affect to some degree the rebellum for the reason there is observed a k of co-ordination.

When the center of hearing is stimulated it anifests the only function it possesses, viz.: EMORY. Hence the auditory center is able call into play whatever association neurons hich is required to complete the answer to a estion asked.

When a person is too intoxicated to reason think it should be easy to see why the an- er comes like the knee jerk, AUTOMATI- CALLY, and not from the control of the will power.

The fact that a subject does not remember when they wake up any questions asked nor any answers to any questions they gave should invite confidence in the function of scopolamin. If they do have any memory islands, they were not under control of the medicine. When the auditory nerve is stimulated by a question and the subject can be made to understand the question and its import in the auditory center, the stimulus is carried to that part of the brain where the answer is stored.

The answer to a question is simply the prod- uct of cerebral integration and is not due to memory impressions stored in isolated places in the brain. How the short cut passages real- ly function, to more quickly call upon the sensi- memorial images when a question is pro- pounded, I fear will never be correctly an- swered.

The explanation for so many failures with the so-called TRUTH SERUM (a misnomer like TWILIGHT SLEEP) is because a state of obstetrical anaesthesia was only induced and the HOUSE'S RECEPTIVE STAGE was never produced from a lack of sufficient medi- cine, or the making of questions too long to be retained and understood.

The criminal test will only be successful in the RECEPTIVE STAGE. This condition of the mind is first observed when the reflex arc is established. In physics, this phenomena is called the BELL/MAGUNDI LAW of CON- DUCTION.

In conclusion I will cite one of my test cases. The principle involved is the same in all cases, except the dose is measured by the strength of the mind. The stronger the mind the larger the dose of scopolamin required.

This man did not know what questions he was going to be asked. I was not permitted to talk to the man until the questions were given to me. The questions were not given to me until after he was completely anaesthetized. The test was provided by a Dallas lawyer for his personal entertainment and those of his friends. The man was hired from an employ- ment agency by the lawyer and was paid five dollars by the lawyer. The man, in soldier uniform, was a full blooded Indian. He was put to bed and given first scopolamin grain one one hundred and thirtieth. In twenty min- utes he was given apomorphia grain one thir- tieth plus scopolamin grain one one hundred and thirtieth. In twenty minutes he was given scopolamin grain one two hundredth. In twen- ty minutes his eyes were covered with gauze held by a strip of adhesive plaster then he was completely anaesthetized to unconsciousness with chloroform to save time and to insure a quick unconsciousness. He was a good Indian

and slept like a baby, although he weighed two hundred and thirty-six pounds. It was an hour before he could even move his lips when asked a question, and forty-five minutes before he reached the RECEPTIVE STAGE. The test questions were as follows:

1. What is your age? 23. 2. Where were you born? Paul's Valley, Ok. 3. Did you ever go to school? Yes. To an Indian school? No, a public school. 4. What grade did you quit school? Eighth grade. 5. How many brothers have you? Two. How many sisters have you? None. 6. Do you belong to a church? No. 7. Did you ever deceive a girl? No. 8. What kind of work can you do best? Cheauffer. 9. Did you ever steal anything? Yes. What did you steal? A pair of shoes in the army. Did you ever steal anything else? No. Did you ever high-jack? No, never did. 10. Do you like army life? Yes. Were you ever placed in the guard house? No. 11. Were you an officer or a private? Non-Com.. 12. Were you ever arrested? Yes. What were you arrested for? Speeding. What did they do with you for speeding? Fined five dollars. 13. Did you ever have a fight? Yes. Where did you have a fight? Road house at San Antonio. Did you shoot anybody in the road house? No, did not have a gun. What were you doing at the road house? I was an M. P. 14. Did you ever kill anybody? No, shot a man in Corpus Christi. Did the man you shot die? No. Did they arrest you for shooting that man? Yes. What did the judge do with you for shooting the man? Turned me loose because he was after me with a knife. 15. Have you any money in the bank? No. 16. Are you married? No. 17. Are you engaged to be married? No. 18. Did you ever bootleg? No. Have you bought any bootleg in Dallas? Yes. Where did you buy the bootleg? Ten miles out on the Denton road. Where on the Denton road did you buy the bootleg? An old shack on the left side of the road. How did you know where to buy the bootleg? A soldier took me. 19. Is your mother living? Yes. Is your father living? No, he died when I was nine years old. 20. What is your name? Lee James.

For the benefit of those present I asked many other questions all of which were answered correctly, so a soldier said, who came with him. It was the soldier who suggested the questions.

In closing let me draw a mental picture suggested by Dr Mosby in his book, "The Cause and Cure of Crime". Can you appreciate a more pitiful and a more helpless object than a man turned out of the penitentiary unprepared to compete with his fellow man because he carries with him his stigma wherever he goes. This misfortune is sad enough for a guilty man to carry, but for an innocent man to suffer the same humiliation should make all of us stop and think that scopolamin might be of some help in criminology and it could not do any harm.

ELECTRICAL METHODS IN THE TREATMENT OF TONSILS

WILLIAM D. McFEE, M. D.,
Haverhill, Mass.

THIS paper is intended to describe particularly the treatment of chronic hypertrophied tonsils. Those having hypertrophied tonsils have increased susceptibility to the development of acute tonsilitis and peritonsillar abscess. They are also pre-disposed to the infective action of various disease germs. The surgical removal of these tonsils in children is attended with a minimum of danger, except in cases of bleeders. In adults, hemorrhage is often very profuse and dangerous. The last few years have seen a noteworthy trend away from surgical procedures in tonsil treatment.

The prevalence of certain infections in tonsil tissue is one indication for its removal. Tonsils are of different sizes and vary greatly in their number of crypts. Abscess of the lung frequently follows tonsillectomy. Those having acute respiratory diseases and bleeders are contraindications for tonsillectomy, but lung abscess has occurred even where none of these contraindications existed. Gruber, quoted by Ballenger, states that "experiments with India ink seem to indicate that there is a direct pathway between the tonsil and apex of the lung". The tonsils have long been thought to be a possible source of infection in pulmonary tuberculosis. When tonsils are removed, a large raw surface is left, wherein any septic infection may develop and drain into the lungs. The stirring up of this infected area in the treatment of the postoperative hemorrhage by packing or swabbing may result in serious complications. Tonsils are of great clinical importance, as they are the source of much suffering and many deaths. Considered from this standpoint, their treatment is deserving of the most painstaking and serious care and study. In his choice of such treatment, the physician should be governed by careful consideration of the possible complications and sequelae likely to follow each method, as well as the beneficial results obtainable in conserving the health and safety of his patient. The only contraindications for electro-dessication treatment are submerged tonsils, and in children below ten years of age. The latter, on account of the difficulty in controlling the patient while under treatment

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lectro-dessication is the one conservative eatment of hypertrophied tonsils.

The advantages of the electro-dessication eatment are as follows: No confinement or ter care of patient; no danger or fear concern- g general anaesthesia; no pain either during after treatment; no traumatism; no hemor- ages, sepsis, or other dangerous complica- ons or sequelae; no recurrence, if thorough- and properly treated. Disadvantages of ton- l surgical operations are well known and need comment here. The only argument that n be raised against electro-dessication treat- ent is that it takes more time. This should e of no particular importance to our patients, nd need not be considered. The length of me required to complete the treatment of ese cases by means of electro- dessication va- es with the condition and degree of involve- ent. The average case requires about six eeks to reach its maximum of improvement, eatments being given at intervals of five to even days. The chief disadvantage of this eatment is that it means several operations nd more time, but is this important? It is lly as certain in its effects as surgical opera- ion, and it should only be undertaken by one miliar with throat anatomy and abnormal roat conditions, and who has acquired a work- g knowledge of the technique.

Some writers go so far as to say that all ton- ils should be surgically removed, although ost of us would take issue with such an ex- reme statement, yet we must admit that ton- ils are the source of many discomforting and angerous conditions. Then why not treat any ase electrically where even a suspicion is felt hat the tonsils may be the cause of certain dis- ase symptoms? In public singers and speak- rs, serious impairment of voice has resulted rom tonsil surgical operation. Where laryn- itis is present, this troublesome condition is nuch improved after electro-dessication treat- nent of tonsils. Expert operators have report- d cases in which large masses of tonsil tissue ave been removed surgically four or five times t intervals from the same patient. The ques- ion is still an open one regarding the function f the tonsil in childhood as well as in adult life; consequently, the advisability of the pres- ent day wholesale surgical removal of tonsils may well be questioned. On the other hand, the treatment by electro-dessication is an ab- solutely safe and sane procedure when proper- ly and completely carried out. This method does most certainly conserve the better health and life of the patient. Hypertrophy is reduced in practically all cases to that of normal, and even less than normal in size, and crypts are obliterated. The resulting scar tissue also forms a protective covering to the tonsil sur- face.

Many methods are now advocated for the treatment of diseased tonsil conditions, those now most commonly used in addition to sur- gery being electro-dessication, x-ray, radium, and ultra-violet ray. I shall make no attempt to differentiate these in regard to their prac- ticability or use of results obtained, as my per- sonal observation and experience has been mainly along the line of treatment by electro- dessication. This appeals to me as the most rational and successful method to produce sat- isfactory results. Surgery is quicker, but is the time element important? Many surgical operations of tonsils are not complete, even when performed by skilled operators, and in many of these cases there is no improvement shown, and some are even made worse. We cannot err in treating every case of visible ton- sillar tissue, as, in doing so, we will often- times remove the common source of acute in- fective conditions; as, incipient tuberculosis and recurrent arthritis or rheumatism.

About fifteen years ago Dr. F. H. Law of New York City presented a paper before this association on the electrodessication treatment of tonsils. The writer was present when Dr. Law operated his first case at the Manhattan Eye and Ear Hospital, New York City, since which time I have treated and observed the progress of a large number of these cases treated by this method. The results have been uniformly good, being entirely satisfactory to the patient as well as to the physician. Many cases considered inoperable surgically were referred to my office for this treatment, and physicians unacquanted with the employment of such measures of treatment expressed sur- prise at the good results obtained. The treat- ment by electrodessication is best obtained from the static machine of low amperage, or the Tesla type of high frequency coil.

In a series of more than one hundred cases extending over a period of fifteen years there has been no appreciable recurrence of tonsil tis- sue, and the tonsil did not again become the seat of diseased processes. Another result is improved ear conditions and much lessened lia- bility of infectious material gaining entrance to the eustachian tube and even to the middle ear. Treatment is best given when acute attacks of tonsillitis are recovered from; never during acute stage, as to do so might cause dangerous infection of the deeper structures. Hyper- trophy of tonsils is most generally conceded to be a diseased and abnormal condition. Hence, treatment for its restoration to normal size and condition is indicated.

During treatment, it is sometimes well to have an assistant press the tonsils forward, so as to bring as much of the tissue as possible into the operative field. The use of long sparks of low amperage, as from the static or Tesla coil,

has a revulsive effect, causing a recoil of the tissue with which it comes in contact. Cauterization is not desired in this treatment because it is followed by too much sloughing, which might be the cause of absorption of septic material, and also, if the sloughing process should involve the blood vessels, it might cause secondary hemorrhage. The tonsil tissue should not be penetrated with the electrode used. The writer uses a specially made electrode consisting of a curved, solid glass rod with wire running through to its end; this is fitted into the ordinary fulguration handle. This is connected to one terminal of the Tesla high frequency coil unipolar. Position of the patient: should be upright in chair, facing the light if direct light is used, or may be treated by artificial light reflected from head mirror. No mouth gag is necessary. Swab tonsils, pharynx and uvula with equal parts of adrenalin one to 1,000 and solution cocain 10 per cent. Sometimes this may have to be repeated. With mouth wide open keep tongue out of the way with wide glass tongue depressor; insert electrode till within one-half inch of tonsil. Have assistant turn on previously tested current from high frequency coil, preferably Tesla. Approach the tonsil till spark forms, then rapidly pass spark over that surface till reaction occurs, shown by white film on surface. In nervous patients we may have to quickly withdraw electrode if gagging occurs, then go back and repeat. In most cases both tonsils may be treated at one sitting. A slight irritation of the throat is felt for one or two days; in a period varying from five to seven days, the throat will be found clear and this method is followed until maximum result is secured, usually in about six weeks, according to amount of hypertrophy. The length of spark varies in individual cases, and individual judgment must be exercised. The final result of treatment is really a sclerosis of tissue, for as the tonsil shrinks, it becomes more firm, due to contraction of connective tissue formation. The voice is improved and strengthened by this method of treatment; fits of coughing disappear; swelling of cervical glands often disappear, due to tonsil absorption.

The current, if used from the D'Arsonval, is very apt to cauterize; that from the Tesla does not; is less hot, being of lower amperage, and more penetrating. Each case should be subjected to a thorough throat examination before operating. Should the throat show evidence of acute inflammation, operation should be deferred until that has been cleared up by appropriate treatment. In most cases it is also advisable to clean out all debris from crypts, which may be well done by syringing with warm saline solution, then applying tincture of iodine by means of cotton wound applicator to each crypt, thus removing possible infect and inflammation from them. Then we ready to proceed with our treatment. T previous preparation puts the tonsil in be condition to receive the electrical applicati A special electrode is now in process of de opment, with which we expect to carry spark to the bottom of the crypts. This still further protect against future invas of disease germs or absorption of infect from decayed food or other foreign particles the mouth or throat.

In an article by Dr. Thomas M. Stewart Cincinnati, published in the New York Medi Journal of July 4, 1919, on high frequency el tric currents in the treatment of enlarged or eased tonsils in comparison with the results cutting operations, data were compiled published on 13,329 tonsil operations. The d referred to were in agreement in the main w the report of the John Hopkins Hospital in B timore. The resume of the author's conc sions is as follows: 1. That the tonsil ope tion does not insure against after attack of s throat, nor of other diseases and infections which the operation is performed. 2. T tonsil tissue is present in nearly one-half of cases after operation, not always to the de ment of the patient, nor a reflection upon operator. 3. That the treatment by means high frequency current secures reduction in size of the tonsil in over 75 per cent of cases causing a shrinking in the tonsil, with healt instead of diseased tissue as a result, no to the voice, and, of course, no danger of sho hemorrhage, or death. The Johns Hopk report states: "The many diseases for wh tonsil and adenoid operations are perform may, and do recur after nose and throat ha been put in normal condition. In any eve the tonsils are not the only gateway for d ease germs to gain entrance into the syste Tonsil operations or treatment alone will cure tubercular glands, rheumatic joints, kidney inflammation." To which, states Stewart, we might add that forty per cent the cases, after removal by the tonsil ope tion, are just as liable to sore throat as bef operation, because of diseased follicles in t pharyngeal walls, and these cases constitut fairly large percentage of cases best treated electrical methods. Fifty-five per cent ha some tonsil tissue left in the throat acting j as much as a cause of trouble as if the surgi operation had never been done. Fifty-eig per cent still have mouth breathing. The fa that many deaths have occurred from ton operation means that tonsil operations a always dangerous. In the Archives of Pe riatics, June, 1906, Dr. A. Jacobi says, "E posure and many diseases change the surfa and structure of the tonsils. Cell infiltrati

ıd cicatricial tissue render absorption less ɔssible; blood and lymph vessels undergo rophy. That is why in advanced life the ton- l gets harder and smaller, and infections be- ɔme less." This is probably just what is ac- ɔmplished by electro-dessication treatment of ɔnsils. Dr. Stewart further states that the icrophotograph shows what the high fre- ıency current does to tonsil tissue. The ton- ls were removed from a patient in whom des- cation had reduced them to one-half their ɪrmer size. On account of the patient going vay to school, the operation was done because lack of time for further high frequency treat- ent. He then quotes from the report of Dr. letcher Langdon, clinical director of the angdon-Mayer Laboratories of Cincinnati, this case: "These specimens are very much ke the so-called normal tonsil. There is no ɔecial atrophy of the blood and lymph vessels. here is plenty of cicatricial tissue, but it runs the septa, and not on the surface. The epi- ıelial layer is about as usual, being more or ss invaded by leukocytes, and in these areas ıere is some degeneration of the surrounding ɔithelia." These latter are the areas dessi- ıted just prior to the operation for the re- ɔval of the tonsils.

Every advocate of a special form of treat- ent is naturally impressed with the impor- ınce of the particular method used by him, but ıch should be broad enough to give due con- deration to the other tried and proven opera- ons and not underestimate their value. Be- gn and malignant neoplasm of tonsils are ɔth successfully treated by the method of ectro-dessication, although the treatment of ıe malignant types is best followed by the use the X-ray to prevent metastasis and recur- ınce. X-ray might well be used both pre- ıd postoperative. Whenever the tonsil tissue suspected of being the cause of impairment health, it should be considered pathologic- lly abnormal and some rational treatment dopted. The combined use of X-ray and ectro-dessication would be best when deep ıfection is suspected.

The demonstrated results of electro-dessica- on treatment of tonsils are destined more and ıore to displace surgical operation, as we are ecoming more familiar with and appreciative their many advantages. In the so-called sub- ıerged type of hypertrophy, surgical opera- on is indicated because of the inaccessibility such tissue to the electro-dessication spark.

As to whether we shall select surgery, elec- o-dessication, X-ray, radium or ultra-violet ght in tonsil treatment, we are somewhat in a ıaze, and it is with the hope that something ıay here be offered to assist someone in select- ıg the best out of the many that this paper is offered for your worthy consideration and discussion.

144 Commonwealth avenue.

Song Sermon

THE GREATEST MENACE

By GUY BOGART,
Los Angeles, Calif.

Close to the heart of Christ she crept.
In her Gethsemene there slept
The fickle crowd, all tired, inept,
While Angela with Jesus wept.

The world unheeding, caring naught
That evil ways with danger fraught
Through careless days and hearts untaught,
Itself at last in sin's net caught.

Until dear Angela with Christ
Braved death and rose from that grim tryst,
Crusading now by day and night
To bring the world to His love-light.



ANGELA KAUFMAN

THIS the sermon, my beloved physicians, of one sent by the Great Physician to co-ordinate with you the alleviation of suffering from the world—a sermon on a crusade and a modern crusader, Angela C. Kaufman. Well has she been named.

There are thousands in Paris, London, New York, Los Angeles and other cities who look to

the only bright moments of their lives when this beautiful young woman opened their eyes for an hour to the reality of love and the fulfilment of service. In China, Japan and the Philippines her steps followed the winding trail of human hearts. In Los Angeles where Angela Kaufman has worked in her day and night prison and civic affairs she has won the affectionate title of "The Angel of the Jail." I could fill many pages indeed with a bare outline of the good deeds which the registering angels have recorded of their sister loaned to this earth to do the tasks He did when on earth. Angela says He is here still, and one look into her blue eyes—one clasp of her healing hand and you know that Christ is at your side—the Great Physician of social and personal ills has a beloved sister here and now.

I might tell of the Independent Business Women's Association she has formed for the young women—and lots and lots more, known and unknow to the public.

But this is the story of "The Greatest Meace." It is the story of the crusade to end the world's narcotic traffic. In Europe, America and Asia Mrs. Kaufman found the trail of "dope" crossing from 60 to 80 per cent of all crimes, and the observation has been confirmed by chiefs of police and prison officials everywhere.

Spending her own fortune and devoting her life to this combat with the dope dragon, Angela C. Kaufman soon found that it was problem for America. I have had the privilege of investigating a wee bit with her and am going to fight by her side until the crusade is ended and the next fight started—whatever that may be. Here are some of the facts we have found.

"Dope" using is increasing rapidly in every American city. The United States, with its 100 million inhabitants, uses more narcotics than the 400 millions of China whom we pity for their narcotic slavery. Our country has the sad distinction of using more narcotics than any other nation on earth—more than any two European countries.

One in a hundred (more than a million!) are addicts in this nation. In San Quentin prison (a fair example) ten in every hundred are users of dope, and of their number 62 per cent began before the age of 21 years.

It takes dope to give the small-caliber crook the "nerve" to commit the petty crimes and the hideous murders of today.

But the small-caliber crook reaches a fraternal hand to some of the biggest-calibered business and professional addicts. They are numbered among all classes—intellectual and illiterate, paupers and millionaires, skilled and unskilled.

Shall we paraphrase the advertising slogan, "a little dope fiend in every home!"

The narcotic traffic runs into the millions of dollars and it is the feverish attempt to make this easy blood money by the soul and body of the weaker brothers and sisters that the higher-ups, entrenched in ease, conduct their unholy barter. It is a systematized and regular business. Drummers and agents are employed in the high schools, colleges, factories, shops and offices, in a hundred ways creating new users of narcotics. Mrs. Kaufman walked into the Los Angeles jail one night and found twenty-five girls between the ages of 18 and 28 who were dope fiends. That is not an unusual matter. The street corner peddler and the runners are of little consequence except to run down the heads of the traffic.

What is our nation doing to defend itself? Local and state officials are struggling with small forces and smaller appropriations. The United States government has only 175 officers to fight narcotics. In a year our federal government spends to end the traffic $750,000. A single dealer may have this much invested—and together the vultures will spend millions to protect their "business."

Here is The Greatest Menace.

Who is in favor of dope?

No one; yet inaction has registered in favor of the spread of the narcotic traffic from coast to coast. There are official strivings to hold back the tides with inadequate resources. There are individuals and groups more or less actively engaged in combating the growing evil.

Now comes the crusade.

Comes Mrs. Angela C. Kaufman of the flaming sword of love; Angela, the modern Joan of Arc, to co-ordinate the scattered forces in a concentrated and massive drive until the dope traffic is ended.

That takes courage, for she realizes this is no child's campaign but a crusade of years and costing millions of dollars. Quietly she has worked until the foundations of her crusade were laid, and now she has fired her opening gun in a big public way.

Weaving from thousands of experiences the romance and the tragedy of life with the threads of dope and love, she has created a story which is not only rich in beauty, but shows the slime of the dope dragon without being too sordid; shows its tragedy—but also its message of hope—that there is a way out. "THE GREATEST MENACE" has been filmed. It is to be shown throughout America as a call to our nation to arouse.

Local and state officials have co-operated by appearing personally in reproductions of actual raids made in Los Angeles. Federal officials of high rank have paused to lend their support to the crusade. The moving picture (produced by Mrs. Kaufman) is not a commercial ven-

ire. Whatever she realizes from it will be ›ent for the crusade. Other pictures will fol›w. But they are only one angle of this edu›tion of the public. The press, the pulpit and l agencies are to be used—for the arousing of ublic opinion is the only possible solution of ie problem. Only the apathy of the public revents the ending of the dope traffic.

The question squarely to each American is: hat will YOU do NOW?

Truly has the poet written:

"At the devil's booth are all things sold;
Each ounce of dross costs its ounce of gold."

But who would not follow such a leader as ie beautiful young saint who has come to us? ngela C. Kaufman is a modern crusader who as heard the voices. She is leading the forces our country in its battle of dope vs. dope, lest ›other great nation be laid low by a little ›wer.

Surely at present the narcotic traffic is The reatest Menace. The doctors have always ayed an important role in world affairs, and e know that they will not fail as usual to re›ond in this crusade to end the narcotic traffic, ith Crusader Angela C. Kaufman walking ead with the flaming sword of the Great hysician.

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

he Influence of High Frequency Current on the Organs of Circulation

Dr. Paul Grosz, roentgenologist in a large provinal town in Hungary, has investigated the action of gh frequency currents on the volume, frequency and nsion of the pulse, on the tracings of the heart and blood pressure. The research was carried out thus: a number of cardiac patients and in a few healthy rsons he determined immediately before and after ch treatment, lasting from ten to twenty minutes, e area of cardiac dullness, the frequency volume, nsion and rhythm of the pulse, and the blood pressre. On an average, the pulse rate diministed after e high frequency treatment by five beats a minute, d the blood pressure rose 8 mm. of mercury. The rgest fall in the blood pressure (systolic) was 12 a inute, and the greatest rise, 25. He uniformly noted increase in the tension of the arteries. As regards e important question whether a single treatment n remove a certain amount of cardiac dilation, he und that, in a measure, this question can be answered the affirmative.

He described one of his cases, an aortic insufficiency, ith marked dilatation to the left and a heaving apex at, which permitted of the precise localization of the ft border by palpation. Here he could satisfy himlf that, after the application, sinistral dilatation was istinctly reduced, the apex beat being less violent and aving appreciably receded. — Cor. from Budapest, A. M. A., Nov. 25, 1922.

The experience of the doctor above quoted directly contradictory to my experience hich has extended over many years and the pplication of high frequency currents in thousands of instances to cardio-vascular conditions. The doctor's method of administration, however, is not stated. There are many ways of applying high frequency currents to the body; if applied by the unipolar method to the cervical spine, the results are almost uniformly as reported, but one familiar with the effects of these currents only employs the unipolar method when an elevation of blood pressure is desired. The general bipolar application as employed in autocondensation is always used in cases of hypertension and the effect upon the pulse rate is to increase its frequency except in some cases of arteriosclerosis.

Blood pressures, when above normal, are practically always reduced by the general application of high frequency currents, whether by autocondensation or diathermia; the only exceptions being in advanced arteriosclerosis and glandular dysfunction when autocondensation occasionally causes a rise, but on the following day the pressures will be found much lower than prior to the treatment.

Hemangioma of the Bladder.—Hubner's experience has convinced him that radical measures are imperative for a bladder angioma. The frequent destructive growth and metastasis and the danger of exhausting hemorrhage justify suprapubic operation, if the symptoms resist thermacoagulation. The incision allows thorough oversight of multiple angiomas. A colored plate shows the findings in a girl of 11 with multiple angiomas in the bladder. Some were exercised and the others cauterized through a suprapubic incision. Six weeks later severe hematuria returned, and the cystoscope showed some new angiomas. They were treated with thermocoagulation and the child has had no further disturbance during the month since She had been healthy till the age of 6 but since then had had more or less blood constantly in the urine. A congenital tendency seems plausible in this and in the cases on record.—J. A. M. A., Nov. 25, 1922.

STUFFED CAPSULES

Chilblains are promptly relieved by diathermy.

✣ ✣ ✣

Cold feet and hands and crampy muscles are relieved by autocondensation or diathermy.

✣ ✣ ✣

Autocondensation is useful in insomnia if not accompanied with hypotension.

✣ ✣ ✣

Many cases of acute bronchitis may be aborted by the application of diathermy. If treated during the first twenty-four hours after the onset of the condition one treatment is usually sufficient.

✣ ✣ ✣

Diathermy is rapidly becoming the treatment of choice in pneumonia; when employed during the first day or stage of congestion hepitization may be prevented. It is useful in any stage of the disease.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald

and Electro-Therapist

Incorporating the

Kansas City Medical Index-Lancet

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The Editors' Forum

"VACCINES FOR BROKEN LEGS"

FROM time immemorial the doctor has been the target for jests and thrusts from writers of all degrees. Even Oliver Wendell Holmes, a physician, a Harvard man, a profound thinker and philosopher, and Shakespeare, a man of infinite jest and deep penetration, have had their flings, and they have been enjoyed and appreciated. But when men like De Kruif, who, in a bold-face manner, malignes the profession as being "led like a pig with a ring in his nose; using all sorts of untried and unscientific nostrums upon innocent humanity for so much a dose"; and such yellow sheets as Hearst's International will publish such articles; and when the official organ of the American profession—Jour. A. M. A.—so stultifies its dignity and sells its honor as to advertise Hearst's International in its pages, commending it to its servants—or pawns—its supporters, it betides the rank and file of the medical profession to arouse from its lethargy and register a protest against the Journal, the Magazine and scandal mongers generally. The article of Paul H. De Kruif, published in the December number of Hearst's International, holds up to ridicule Dr. G. H. Sherman of Detroit, who produces vaccines under the United States supervision, and berates him to such a degree as to disturb relations between the house and the profession and between the profession and their clients. Such publicity is unfortunate in that medical practice, like commerce, depends upon confidence between the contracting parties; it is Bolshevistic, or may be only revengeful. Can it be that some cul which may have had an unpleasant exposur is retaliating or attempting to do so? Hav they found a cat's paw which consoles th burn at so much a line? We are living in pecu liar times. Propaganda, having proved o much avail in certain lines, is now used to fur ther deceive man. The press for decade moulded public opinion and judiciously sc admittedly so, but may it not now be de throned, losing its high place in publi estimation, and descending to the level of th weather almanac? As a final straw, can we b guided any longer by the presumably ethical dignified American Medical Journal, when i carries the advertisement for Hearst's Inter national in its columns at so much per page

J. M. B.

HEART DISEASE

THERE is an organization in New Yor City called the "Association for Preven tion and Relief of Heart Disease," th Executive Secretary of which is a very charm ing and mature Miss, whose heart I would sa had never been "greatly affected."

Their literature contains some very usefu data and propaganda. They attempt to get line on heart cases among the poor, see tha they are taken care of and treated by a com petent physician, that they do not go back t work too early after sickness and that a chang of employment is brought about if the wor is too heavy—to get them lighter employmen

They claim that 2 per cent of persons ex amined by insurance companies are rejecte because of serious heart defects.

That 2 per cent of industrial workers ar found to be subjects of serious heart disease That 2 per cent of those examined in the draf and camp examinations by Army Medical Ex aminers were rejected on account of seriou heart disease.

Nearly 2 per cent of the children examine in the schools show serious heart defects.

For a practical working basis of the pri mary causes of heart disease they set down:

1. Infectious diseases—acute rheumatism diseased tonsils, adenoids, teeth. "Growin pains" are symptoms of rheumatic infection Chorea is closely allied to rheumatic infection Syphilis.

2. Improper modes of living—sedentary lives, eat too much, sleep too little; alcohol tea, coffee, tobacco; spring debilitated states malnutrition.

3. Too short a convalescence after an acute sickness.

The economic problem involved in heart cases is the field of great activity of the Asso ciation because children lose much of their

education, they fail to become self-supporting; the adult has lessened earning capacity.

The great work of organization and effort against Tuberculosis has spurred on the Association for preventing and handling heart disease. The work is now well under way.

Some of their instructions and warnings: Consult your physician as to how you should conduct your life. Every person with organic heart disease should limit his physical activities. Amusements and work should be chosen with a view to limitations. Avoid emotional situations and excitement. Ten hours a day in bed. A vacation is necessary. Diet plain, and sufficient to keep the weight normal. Drugs only under the doctor's orders. Careful examination at least once a year.

"We can no longer wait the coming of patients to our offices, but we must search for them among the presumably healthy and attack their disabilities before the patient is aware of them, and this through a development of a habit in the whole community to seek a thorough medical examination once a year for adults, twice a year for children under 14, and always after apparent recovery from any acute febrile disease."—H. Emerson, M. D., New York, Boston Med. Jr., June, 1921.

H. N. J.

THE WESTERN SCHOOL OF ELECTROTHERAPY

Will hold its fifth annual session during the week beginning April 16, 1923.

The physician's interest in the application of electric currents to diseased conditions is rapidly growing and the demand for practical instruction in physiotherapeutic methods is now almost universal.

In the past the physician was often worried over his cases of cardiovascular involvement and it was not until the discovery of high frequency currents, which made the management of these cases easy that he regained his peace of mind. The instruction that will be given at the coming session of the school in the management of cardiovascular conditions will be invaluable to any physician.

While the fundamental principles of electricity will not be neglected, more time than heretofore will be devoted to clinical demonstration. All afternoon sessions will be devoted to clinical demonstration of physiotherapeutic measures. All new methods of technic will be fully explained.

The exhibition of electrotherapeutic apparatus as heretofore will be complete and at least two evening sessions will be devoted to its demonstration, making it a rare opportunity to compare the apparatus made by the different manufacturers.

All instructors are regular physicians and at the same time are experts in the different branches of physiotherapy and a painstaking effort will be made to clear up the difficult problems met with in practice with these measures.

The school is strictly ethical in character, none but qualified physicians or their assistants being allowed to register.

A preliminary program will be published in the next issue. Look for it.

BUCHANAN COUNTY MEDICAL SOCIETY

AT the regular monthly meeting of the Buchanan County Medical Society, held December 6, officers for the ensuing year were elected as follows: President, Dr. Leroi Beck, first vice president, Dr. W. H. Minton; second vice president, Dr. E. A. Gummig; secretary, Dr. H. S. Conrad; treasurer, Dr. John M. Bell; censor, Dr. E. S. Ballard; delegate to State Convention, Dr. H. W. Carle; alternate, Dr. J. F. Owens.

Major C. M. Sampson, late of the physiotherapy department of the U. S. Army, gave a two hours' talk with moving pictures, showing the work done by the department.

BETTER DAYS ARE COMING?

HAVE you ever taken an osteopathic treatment? If not, you cannot appreciate how apropos the picture which heads the advertisement of the Bureau of Osteopathic Education—a gladiator with his foot upon the body of a fallen foe, evidently tramping the breath out of him. I can imagine how a friend of mine must have felt who died of pneumonia some time ago under a similar treatment, particularly when the advertisement reads that "osteopaths use no curative drugs." Of late years the fact has been noted that people have departed from all the old exalted standards of discipline, of moral and spiritual ideals. Some standards involving common sense have likewise been shattered. Let us abide the time with patience when such standards will again be raised and followed.

Does it not strike you as being peculiar that the Mayo clinic makes no distinction in its consultation work between the M. D. and the D. O.? It is not long since that a Mayo was honored with the presidency of the A. M. A.

J. M. B.

Actinomycosis is found in different species of animals: beef, horse, hog.

There is a movement in England against athletics for women on the ground that it produces masculinization.

REMARKS ON PNEUMONIA

BEING called to see a case of pneumonia it does not seem wise to this writer to lose any time in instituting treatment and establishing the nursing regime.

The type of pneumococcus is not of material import in the practical phases of the treatment. As to which lobe is affected does not require a consultation.

It is not well to transport a patient with pneumonia at any stage of the disease. It is important that he be put to bed and made comfortable and quiet. Alarming and explosive relatives and friends must not be allowed to get at him to destroy his Christian Science outlook. At no time must your pneumonia patient be shocked or scarred or frightened or allowed to feel that he is going to die. Especially should children be made to feel that they are not very sick and that in a few days they will be all right with some special favor as of a visit or new dress, or wagon (even to buying the wagon).

It is essential that the pneumonia patient does not have too much "nursing" and home "care."

A quiet room, a level-headed nurse, no "sitting up," fresh air, low temperature, wholesome, nourishing liquid food, plenty of sleep and rest, the suffering controlled, and whatever the medication is the above plan lays a most excellent foundation for it, in my opinion.

Large doses of quinine at first are approved by the writer. Calomel in the first capsules is essential, followed by oil. Coal tars are very questionable of use, and vastly inferior to morphine. An occasional Acettyl Salicylic Acid 5 gr. tablet may be used if the temperature is staying high.

Ice to the chest scares me to death. Some use it. I never use it and could not permit it to my own child.

Flannels, glycerine soaked, to the chest are good. With children I use antiphlogistine and find it very soothing if applied right.

HOW TO APPLY ANTIPHLOGISTINE

In the first place it must be antiphlogistine and not something else. It must be heated in the can and applied to the skin with say a case knife and never applied to cloths. It must be covered with thick cotton and never with cloths. It must envelop the chest and the cotton must envelop the antiphlogistine. The cotton must be covered by a shirt or waist and pinned snug. The whole is left on 18 or 20 hours and renewed without any bathing.

It is applied with the patient recumbent—flat. Have everything ready before starting—cotton, shirt, safety pins, etc., so as not to prolong the disturbing of the patient.

If you have a fretting, disturbed, uncomfortable, restless pneumonia patient of any ag you will find the antiphlogistine jacket to th chest, if properly applied, a very soothing thing. I do not say antiphlogistine cures pneu monia. I do say that if you put a thin smea on a cloth and apply that to the chest it migh as well be put on the ice chest or hope box.

After the second or third consecutive jacket of antiphlogistine is removed a layer of cotton may be put on the chest and worn for 24 to 36 hours—never longer.

SERA AND VACCINES

This writer prefers P. D's pneumonia phylacogen—if it is given properly—although there are several other good products on the market. "Praise the bridge that carries you safely over."

On the day of your first visit exhibit your phylacogen. Give three drops by hypo, under the skin. Repeat in 12 hours, increasing the dose by 3 drops and so continue at 12-hour intervals (unless there is reaction) giving the increasing doses yourself, with the greatest accuracy, care, cleanliness and regularity. I do not get results for some reason unless I know what is going on,—either the nurse spills it or loses part or gives it in the skin,—or, by her giving it, I do not watch it and follow it closely enough to get results.

In the last five years the above treatment has netted me 100 per cent cure—excepting save for one death.

In some cases of pneumonia this writer has seen over-treatment and over-care to be detrimental. Many physicians themselves sent to the hospitals with pneumonia do not recover from over treatment.

On the other hand I have seen many cases of pneumonia treated by "experts" with sera and this alone and the patient neglected.

Many cases require a little strychnea early in the treatment.

Many cases are allowed to suffer and lie awake to their great detriment. With many digitalis is not exhibited until they are dangerous.

I would rather a pneumonia patient would cough and "raise," but the cough should not disturb the patient too much.

I much prefer to give no opiate to a pneumonia case, but it is absolutely harmful to allow a case to suffer and to cough too much and to lie awake.—H. N. J.

Doctor, when you are in St. Louis, make your headquarters at the Claridge, one of the newer hotels, located near the Union Station and convenient to business. You will find a maximum of service at a reasonable rate. The manager, Mr. R. L. Meyer, with many years training in Statler service, understands how to make his guests feel at home.

Correspondence

THE TRUTH SHALL SET YOU FREE

JOSEPH E. G. WADDINGTON, M. D., C. M.,
Detroit, Mich.

N A recent issue of "The Medical Herald and Electro-therapist" appeared an article headed. "What do you do with your ıronics?" Wherein its writer advises that ıid chronics should be diagnosed by the Elec-onic Reactions of Abrams" and presumably, ıough not so stated, treated by the oscillo-last.

Without entering into any argumentative iscussion as to the diagnostic and therapeutic ıerits or demerits of the Abrams method, it ill readily be conceded by all who have inves-igated the matter, that if the technique be so echnical that even its originator claims only ive out of every hundred of those who study : can adequately qualify, and these figures pparently overestimate rather than underesti-ıate the average ability, then the Abrams ıethod cannot yet be received as a panacea for ll our chronics.

While many earnest students are carefully ıd earnestly laboring to elicit the tuth, it can-ıot yet be acknowledged that the truth, the vhole truth and nothing but the truth is yet lemonstrable concerning this bitterly abused, rofusely lauded, latter day savior of suffering ıumanity.

If the statement "No syphilis, no disease," be ssumed as correct, and this apparently is the ıasic foundation upon which the ERA is or are ıuilt, and upon which apparently treatment is onsequently founded, it would appear as omewhat superfluous to spend much time and ıuch money in perfecting and equipping elab-rate methods of diagnosis a la Abrams, even f one may thereby diagnose straphylococci, treptococci, cancer, and various other con-omitant infectious lesions, for a priori, remove he cause—syphilis—and these symptoms, ef-ects, should, as a natural corollary, take flight vith the initial and underlying cause.

I am not writing this article to condemn he ERA, for it is too little understood as yet ither to condemn or to advocate, but am sim-ply expressing some conclusions that I have leduced from a more or less extensive perusal of the writings of Abrams and some of his fol-owers and also more largely and practically rom personal experience with some of his stu-lents.

A few isolated or even many cases of recov-ry, no matter from what, are not truth suffi-cient to make all suffering free, for even Chris-tian Scientists and Chiropractics, who are as enthusiastically damned on the one hand, as they are antithetically lauded to the skies on the other hand, can evidence numerous and startling cases of sickness restored to apparent health which had previously remained embar-rassingly and exasperatingly resistant to ortho-dox medicine.

It therefore behooves us to "prove all things first and hold fast to that which is good," con-demning nothing just because we may not have tried it or not been honored with at least some practical as well as academic acquaintanceship.

Allowing the claims of the most zealous ad-herents of the ERA to be true, the time is not yet arrived when the method can be even ap-proximately considered as being practically, even if it were pecuniarily, available to the general practitioner, for reasons quite numer-ous and obvious as somewhat foreshadowed by preceding statements. Consequently, "What do you do with your chronics?" will and must be answered more or less variously, according to the personal equation of each physician.

It is, of course, premisely understood that the chronics are to be treated, and not ignored, which means that the physician cannot satis-factorily treat said chronics if his armamen-tarium be circumscribed by a prescription pad and a few or even many shelves of drugs.

One outstanding reason why the Osteos, Chiros, Christian Scientists, and other so-called irregular cults have leaped into laic popularity arises not alone, though primarily of course, on account of their clientele having failed to gain sought-for relief from physicians, but be-cause these newly hatched practitioners, irreg-ular and lacking in a broad and thorough train-ing though they be, do not lack in the close per-sonal, practical and friendly touch; frequent adjustments, manipulations, improve at least to some extent, circulatory and nerve activity and very strongly and favorably impress the patients as material service practically ren-dered; stressing the importance of thinking health instead of the patient being perniciously obscessed with the idea of disease; such irreg-ular features, materialistic or psychic, or both combined, sometimes create results that may well seem miraculously incredible to the dig-nified, conservative, ultra-scientific dispenser of advice and drugs.

We all realize the importance of fresh air and sunshine, a cheerful contented mind, daily physical exertion and correct diet; yet in this civilized age of ours how much of these essen-tials can be naturally appropriated?

The air we breathe is habitually contami-nated by the emanations peculiar to our civili-zation; sunshine, even if it were abundant, can-not penetrate through our modern dress to

intimately contact with that great natural absorber and purifier, the skin; the exercise of the wealthy is largely restricted to stepping into and out of a limousine, and the proletariat usually has to work so hard and too often unhygienically, as to preclude healthful exercise of organs and muscles not otherwise developed; food is so refined and literally cooked to death as to be more or less lacking in many of the essential salts and vitamins.

No wonder we have so many chronics, and an expert nosological definition is by no means a sine qua non, even if it were practically feasible, of treatment and quite satisfactory treatment at that.

Here is where the skilled physio-therapist enters or should enter into his own. The specialist, of course, will be well grounded in all the practical fundamentals underlying faith cure, mental control, and practical psychology; he will be able to intelligently and practically, but not too scientifically, outline a daily diet; be able to counsel wisely in regard to the overcoming of bad habits, whether of mind or body; all this in addition to an office thoroughly equipped with all the well recognized and available sources for adequately supplying natural physical deficiencies in the patient's mode of living.

The general practitioner is not debarred from participating in physio-therapy for his chronics; he can supply himself with at least one modality, if not more, wherewith to relieve some of his simpler chronics and should at least know and remember where he may send his bete noires to secure desired results, which will not alone relieve him of chronic grumblers but happily convert such into grateful retainers.

There is no necessity or occasion, in this article, to go into technique or indications for the various physio-therapy modalities; suffice it to state, that with deep therapy lamps, electric light cabinets, actinic ray lamps, high frequency. Morse wave, galvanic and sinusoidal currents, traction tables, vibrators and oscillators, oxygen vapor apparatus, etc., etc., chronic indeed must the chronic be that will not respond more or less satisfactorily to some one or more of these time proven, trial tested friends, when expertly and perseveringly employed, conjoined with the full co-operation and confidence of the patient.

In conclusion, let us one and all endeavor to study all apparent remedial measures, no matter how subversive of our previously held ideas such measures may appear to be, and then shall we be in no danger of overlooking valuable truths but will become more and more enabled thereby to set our suffering chronics free.

Suite 610 Scherer Bldg.,
115 E. Grand River Ave.

Carpings of the Cynic

ANTITOXIN, DIPHTHERIA, 'N' EVERYTHING

HAVING had twenty-two years' experience with diphtheria antitoxin and never having had an accident with it nor a disappointment in its proper use, and no contra-indications, nor any bad effects other than an urticaria or anaphylactic manifestation, the writer felt very chesty and secure under its sheltering protection.

I have never used massive doses—seldom over 5,000 units, more often less; have always given it "right now" and then gone home and gone to bed at bedtime.

I have never hesitated much to discriminate whether we had a false or true membrane or a "sure enough diphtheria"—just so that I saw a membrane; then I was never satisfied, especially if there was little or no fever, until I had given the antitoxin, then I felt I had done my duty.

I never was a "hand" for the second dose, but still and yet if at the end of twenty-four hours the membrane had not lifted or the fever subsided I gave the second shot, preferably the next day, or before the end of forty-eight hours.

I never like to have my diphtheria cases up and around the house, but keep them in bed until they are "plumb well."

I—(aye, aye, sir-) I never had any compunctions about giving the antitoxin to Scribe or Pharisee, young or old, Christian Scientist, bad heart, bad breath, bag egg, or bad actor.

Yet I have always wondered what I would do for an asthmatic patient with diphtheria. I have just had my chance to find out. (And that's where this article started to begin.)

I—(are you wise to all these I's?) I was recently called to see a two-year-old child who a year back had had a bad attack of asthma, was treated by a children's specialist, and whose father I was then and now treating for a long-distance, back-firing, Ford-auto-asthmatic attack.

Here it was, his child with a post tonsilar, white patch, elevated, marked edges, larger on one side, smaller on the other, and a low grade temperature. (I feel safer in diphtheria when the fever is high.)

I have read for years never to give an asthmatic antitoxin, anyway, absolutely.

There we were then with our antitoxin 'n' everything—all dressed up and no place to go. I went over the heart and lungs and as there was then no pronounced type of asthmatic

reathing and no adventitous heart sounds, I ave the child 1,000 units of antitoxin.

I fortified my position, as I hoped, by pro- uring some adrenalin, and decided that I ight be able to check the attack if it showed p, but if it killed the baby I did not know here I'd go or what I'd do in Mexico.

Nothing happened! The child went to sleep, nd the next day the membrane came off. I lt very chesty, 'n' everything.

So that's that.

The fee will be a mere bagatelle, nevertheless ommensurate with the fortitudinous skill dis- eminated in the exigencies of the occasion, nd all. H. N. J.

"DOCTOR'S EMBLEM"

There is no distinctive emblem by which the octor's car, or the doctor's anything else, may e particularly or especially marked. Is it ecessary?

The Red Cross emblem, before the war, was eing used by many doctors on the radiator and n the rear of their cars. There was no author- ty for this, as the Greek cross of red color be- ongs to the Red Cross organization by federal aw and cannot be used on a car not engaged n Red Cross work or a member of the Red ross service.

The green cross has also been used and is robably not an infringement. Neither does t stand for anything more than a circle would, r any other imprint, as there is no organiza- ion or authority back of it.

The caduceus emblem has also been used by loctors and is now being advertised for sale y a medical journal. This emblem also be- ongs to another organization, the United States Army and the Public Health Service, nd is theirs in their own right.

After all, do we need such an emblem? The ccasions in which we might be justified in driving beyond the speed limit are very, very ew; and, should an officer of the law stop us not having on the "privileged" emblem or re- galia) it would be very easy and probably very are to report that you were on a hurry call. And anyway, no emblem, should give you per- mit to drive madly and wildly on the streets.

The writer challenges you to a careful enu- meration, and on the fingers of one hand to number the times that a doctor's emblem on your car was really essential and wise, to per- mit you to drive fast. But having such "pro- tection" you easily feel called upon to step out a little!

Now, on the other hand, having an emblem, on which you rely for protection against infrac- tion of the traffic ordinances, you humor your- self into taking chances and risks that after all are not really essential to medical service.

Rarely, I say, is it to be indulged, lest we re- gret that haste makes waste. One of the prime requisites for the old doctor was, that he move slowly and sedately, keeping himself always in hand.

The doctor should be the one in his com- munity for law and order, and not an example of the law's infractions?

H. N. J.

DRUG THERAPY

IF you have come to think that drugs have passed out and that drugless therapy has passed in, you are mistaken. Drug therapy is here to stay. It seems to be true, however, that the more surgery one does the less he avails himself of drugs. This does not prove anything against drugs.

There should be developed a more whole- some attitude toward drugs. This is coming. Pharmacology is not a dead one; physilogic chemistry is very active and alive—these are clarifying the atmosphere and bringing drugs into their own.

Drugs are of service when there is a derange- ment of function (L. G. Rountree, M. D., J. A. M. A., 10-1-'21). Surgery is of service where structure change interferes with health and comfort and cosmetic appearances. Drugs may maintain a "function compatible with life in spite of the existence of definite or even ad- vanced structural change." Surgery cannot go further than the correction of structural inter- ference. Drugs never reckon without the host; surgery merely inquires if the host is present.

The greatest blow that drug therapy receives is the unknown quantity wrapped up in the filled prescription. The druggist may be ever so accurate and honest, the label may show a standard product, U. S. P., from a standard house, U. S. A., but the contents of the bottle may be of no use—may have years ago lost its potency and strength. If any. Who can tell?

Here's the round robin: The druggist fills the prescription according to label. A trained nurse awaits the medicine, administers it faith- fully and well, and it had as well been water. The doctor calls daily, watching for results and results are an unknown quantity. No one is blamed. There is no result. There is no progress. In late years some benefit has come from certain pharmaceutical houses and firms specializing in manufacturing, say, Jones' Digitalis, Smith's Aconite, Brown's Cascara, or what not. This is bad, but it is better than some, as the action is at least dependable and after all, it is results you want, and results are improbable with inert drugs.

Take Glyco-Heroin Smith's (Glykeron) for illustration. Who likes to prescribe it? Yet it is a very dependable cough mixture and when you give it you know just what to expect. But

you could not have the prescription filled a dozen places with a dozen druggists compounding and have any two filled alike, nor could you tell what dosage would produce what or any effect. The fault would not be the druggist's. The fault lies in not being able to know the unknown quantity in the contents of the druggist's bottles. And for this, drugs very often receive a knockout blow.

It is eminently unfair to the doctor. The evil is ancient. Standard tablets, alkaloids and such have been offered with some improvement. H. N. J.

YEAST, AGAIN, YET

At the United States Naval Academy many of the midshipmen had boils. The condition had been of long standing and no preventive measures did any good. According to report of a series of cases by Commander I. S. K. Reeves, Medical Corps, U. S. Navy, he tells how the use of yeast on a large scale for these cases was begun. He says one fellow came back from a long sick leave with an account of many and much boils and that he gained forty pounds and was cured by yeast.

So, a total of 130 midshipmen took yeast regularly three times a day for several weeks, one cake after a meal, with the following results:

Forty-five had boils. Thirty were rapidly cured.

Forty-five took the yeast to gain in weight. Thirty gained weight.

Of twenty-one cases of acne, three were cured, seven improved, seven increased weight.

Six took yeast for constipation; four were cured, two improved.

Cases of boils did not return after two months.

No ill effects of taking yeast were noted.

Note: I have never seen any benefit in any case where yeast had been used.

It seems rather singular from the above review of the government's cases therein recorded that those results do not bear out the results obtained outside of the reports of those commercially interested. Was this article based on a carefully controlled impartial report of a scientific investigation? Did some investigator get his report mixed with too much sugar and raisins 'n' ev'rything? H. N. J.

I think gland implantation is here to stay, and is destined to be the foundation of a rational and comprehensive gland therapy which will be of incalculable value.—Lydston, Ill. Med Jr., Aug. '22.

Dr. Arthur C. Clasen wishes to announce the opening of his offices in suite 744, Lathrop building, Tenth and Grand Avenue, Kansas City, Mo.

The Holy of Holies

MEDICINE NEEDS

1. More publicity: Pure, logical, sensible, actual publicity. The spreading abroad of a knowledge of, and emphasizing, its beneficent discoveries.

2. To make known to all men the true status of its art and science which the quacks and cults have garbled and mulcted.

3. A campaign of education for the public, especially to connect up the public with the newer advances in science.

4. A more uniform and less personal interpretation of laboratory findings, made practical for the requirements of the General Practitioner.

5. To teach nutritional requirements in the light of practical dietetics.

6. A renewing of its vows, a study of its opportunities, and a heart interest in its responsibilities.

7. A readjustment of its vision.

8. A constant intuitionism of its being a profession with the "sublimest ambition."

9. To give us pause, to take the public into account of our research work, of our medical education, of the principles and philosophy of our practice, of the art of our healing.

10. To clean house; to "leave its outgrown shell by life's unresting sea."

11. A stabilizing, appreciative influence to hitch together for team work; the general practician, with his rare faculty and power that long practical experience in the use of his touch, sight and hearing have endowed him, and the modern graduate with his technical knowledge and science. It is ever Art vs. Science.

The Christian Scientists have their Wednesday night meetings and shout their wares from the housetops.

The Chiropractics advertise and visit the legislature.

The Osteopaths sit up on their spine and adjust the bones to suit the public.

Medicine sits up by the bedside all night, or locks itself in the laboratory; accepts the jibes, suffers the freak legislation, keeps the faith, cleans up the failures of the cults, and all the while its poor, lisping, stammering tongue lies silent as the grave.

"Harking Back."

KANSAS CITY, CENTER OF THE EARTH!

You may stand on Memorial hill and shake hands with London and Hawaii, at the same time—by radio—(via Kansas City Star's Broadcasting Radio Station).

The Melting Pot

Certainly thyroid disease tends to run in nilies.

✣ ✣ ✣

Many of the Basedow patients are "thymus rriers."

✣ ✣ ✣

The X-ray man is very positive that the best :atment for ringworm of the scalp is the ray.

✣ ✣ ✣

A tubercle bacillus may rest in a lymph de for months without giving rise to a single mptom, or cellular change.—So. Med. Jr.

✣ ✣ ✣

The gonococcus is not supposed to live ore than three years in a host. Many cases gonorrhoea get entirely well.—Henry Mcure Young.

✣ ✣ ✣

Many patients suffering from Graves' dise eat ravenously and still lose weight. The gree of taxycardia when the patient is at rest a very good measure of the metabolic rate.

✣ ✣ ✣

Do you believe in birth control? The more telligent class of people today practice it, e less intelligent do not. What effect will is have on the race in the next few more genations?

✣ ✣ ✣

Do not dismiss a neurotic or timorous pant with the assurance that a lesion is really gligible, always explain why; you will thereby give the patient his just due, and also protect your reputation from the charge of carelessness.—Urological and Cutaneous Review.

✣ ✣ ✣

When Von Pirquet conceived the idea of sing tuberculin as a diagnostic measure it was und that the infection was almost universal. e have demonstrated by the use of tuberculin, post mortem examination and X-ray udies that infection in children is almost niversal.—Dr. Moorman, Oklahoma City, So. led. Jr.

✣ ✣ ✣

I I use 3 to 5 c.c. of a 1 per cent solution of ercurochrome instilled once a week after rostatic massage. It penetrates into the tisues further than any drug I know. It must e used cautiously. It cannot be used every ay. Some very prolonged and rebellious cases ave recovered under its use.—Young, So. led. Jr.

✣ ✣ ✣

Have you renewed your subscription?

Current Comment

SIOUX VALLEY ASSOCIATIONS MEET

On Wednesday, January 24th, the Sioux Valley Eye and Ear Academy will hold its twentieth semi-annual meeting at the West Hotel. On Thursday and Friday, January 25th and 26th the Sioux Valley Medical Association will convene at the Martin Hotel for its fifty-fourth semi-annual meeting. The profession of this territory is particularly fortunate in having a large number of "stars" as its guests on this occasion. Dr. A. J. Ochsner, Professor of Surgery, University of Illinois, Dr. Martin Fischer, Professor of Physiology at the University of Cincinnati, Dr. Wm. Engelbach, Professor of Medicine at the St. Louis University, Dr. Dean Lewis, Professor of Surgery at the Rush Medical College, Dr. Clifford Grulee Professor of Pediatrics at Rush Medical College, Dr. M. A. Blankenhorn, of the Department of Medicine, Western Reserve University, Cleveland, Ohio, Dr. J. S. Evans, Jr., Professor of Clinical Medicine at the University of Wisconsin, Dr. Henry Schmitz and Dr. Lewis Bremerman of Chicago and others of like calibre will be with us on this occasion. Don't fail to do yourself the honor of attending these meetings. The local profession, as well as the city, will deem it a pleasure to put the town at your service at this time.

THE NATIVITY

'Twas Christmas eve, and bitter cold;
The wind had ceased to blow;
I saw a cottage by the road
Half-buried in the snow.
An upper window showed a light,
And over field and fen
A joyous peal of bells announced
The birth of Christ again.

Lo, from the lighted window came
A new-born baby's cry,
And o'er the cottage roof, behold,
A star shone in the sky—
Perhaps the very same that stood
O'er Bethlehem of yore,
For Christ in every little child
Is born on earth once more.
—Minna Irving, in Munsey's Magazine.

CROSSING THE BAR

Sunset and evening star
And one clear call for me!
And may there be no moaning of the bar
When I put out to sea.

But such a tide as moving seems asleep,
Too full for sound or foam.
When that which drew from out the boundless deep
Turns again home.

Twilight and evening bell,
And after that the dark.
And may there be no sadness of farewell,
When I embark;

For from out the bourne of Time and Place
The flood may bear me far,
I hope to see my Pilot face to face
When I have crossed the bar.
—Alfred Tennyson.

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

Adventures in Endocrinology.—By Henry B. Harrower, M. D., director of the Harrower Laboratory. The Literary Department of the Harrower Laboratory, Glendale, Calif. Third edition, 1922. Price, $1.00.

The third edition of Dr. Harrower's Adventures in Endocrinology is out with this philosophical dedication: "To my esteemed colleague, George H. Simmons, who, by his opposition through twelve years, has stimulated me more than many a well-wishing friend." And this is well put. Those of us who know Dr. Harrower best, whatever the shortcomings attributed to him, never knew him to use a stilleto in the dark or do the cats-paw diplomacy act when the embers were red, to further his own selfish interests or to punish a suavely friendly enemy. He is always frank and to the point and welcomes criticism and he now extends his appreciation deep down in his heart, in dedicating the third volume of "Adventures In Endocrinology" to Dr. Simmons, not for what he tried to do to him, but what he actually did for him, viz., stimulated me more than many a well-wishing friend" to do more and better work.

This little book is Dr. Harrower's condensed defense against the seemingly organized criticism; against the whirlwind of blinding dust and confusion gathered from the medical highway, and twirled high in the air with some swirling atmospheric, "pseudo" versus scientific commotion, and much emotion, tending to discredit his ideas of plurigandular therapy and magnify his feared commercial activities; as a defense of his long maintained views and aspirations for adding clinical information to the field of endocrinology. He hands his critics, without reservation, paragraph after paragraph and quotations ad libitum et at finem from their own scientific (?) writings, maintaining his position; that "salus populi suprema est lex" (the Missouri motto). The editor of Endocrinology with his "fixed delusions" on "pseudo-endocrinologists leading the medical profession astray" receives Harrowerized attention that provokes a smile.

And Dr. Cushing is taken to task for "changing his religion" on the pituitary, between the writing of his book, "The Pituitary Body and Its Disorders," and the delivery of his presidential address, "Disorders of the Pituitary Gland, Retrospective and Prophetic," before the Association for the Study of Internal Secretions, June, 1921. From the liberal quotations from this address it would seem a generous repast of "crow" was participated in and marked fear seemed to be that "nothing will discredit the subject (endocrinology) so effectively as pseudo-scientific reports (Page 97) intermixed with researches of actual value in the administration of pluriglandular compounds."

In reading Dr. Hoskins' criticism one is impressed with the idea that the contributors to endocrinology are an "incompetent," ignorant bunch of medics. On page 80, in one paragraph, he gets this out of his system: "Pseudo-endocrinologists," the guesses of novices; "shallow tinkers" with "systematized delusions masquerading as the teachings of experience;" "marvel mongers;" "gross distortions" with "actual mendacity."

On page 79 he still gasps: "The literature includes a deal of twaddle, pretentious nonsense, designated as "pseudo-endocrinology," "pseudo-scientific rubbish, exploiters and clinical incompetents;" "pseudo-endocrinologists addicted to theorizing;" "a long suffering profession in disgust with the rank growth o weeds," and on page 78 he wants to "plow up" th entire field of endocrinology."

Of course general physicians are incompetent: some of them, perhaps, are medical "farmers," an others, mayhap, are plain "farmers," but we would nc suspect that Dr. Hoskins saw the light of day on th farm; but when he talks of "the rank growth c weeds" and wants to "plow up the entire field," h certainly talks the "farmer" language well.

Yet, with all the foregoing "verbalism that obscure rather than clearifies," Dr. Hoskins seems amazed tha the medical "incompetents" do not look for physic logical instead of therapeutic reaction in disease cor ditions.

But in the third edition, last chapter of Adve tures in Endocrinology, Dr. Hoskins in "Some Prin ciples of "Endocrinology Applicable to Organothe rapy," says: It is widely assumed that perturbe function in any one gland is characteristically to lowed by changes in the others. It is presumed tha any endocrine gland may show a condition of no mality, hyperfunction, hypofunction, dysfunctio or dysfunction plus hyperfunction; that is or normal and five abnormal states. Theoreticall there exists, therefore, five uniglandular syn dromes for each endocrine organ. The mo enthusiastic endocrinologists assert the existenc of at least nine endocrine organs, each of whic presumably can assume any one of the six state The possible number of basic combinations, then, six to the ninth power, or 10,077,696. One of the combinations is normality of all glands; hence th theoretical number of endocrinopathies is 10,077,69 If one is more modest and assumes the existence c only six glands, there are but a paltry 46,655 po sible endocrinopathies.—Journal A. M. A., July lxxlx, p. 105.

Can you fancy, gentle reader, after the nth pow exhibit, seeing the array of farmer medics, respo sible for present day endocrine literature, rushing make concealment, forgetting that the learned calc lator from calculus, this endocrinological ne plus ultr had ever spoken their language? And then a litt foot note in pathetic appeal, explains that a no medical professor emulated the author to the n equivalent and thus the reputation of the medic profession, namely, that we are not cultured beyon fractions, is preserved.

So after all, reader, if you are endocrinological inclined, and want to know something that no on but Dr. Harrower's critics know, get this little boo and cultivate the controversial smile as you rea

S. G. B.

High Frequency Practice For Practitioners an Students.—By Burton Baker Grover, M. D. Illu trated with ninety-five engravings. Price, $4.0 Kansas City; The Electron Press. 1922.

In the application of high-frequency currents to d eased or perverted conditions of the human organis the author informs us, it has been his endeavor give a physiological reason for their use. In a f instances, he admits, their use has been recommend when, without known pathology they have be proven beneficial.

Just as the employment of drugs should be ba upon their physiological indications, so, the auth asserts, should be every application of electricity. No ing could be more destructive to rational therapeuti he avers, than for a physician to let himself be c ried away by very interesting results secured fr the application of high-frequency currents. Electri modalities assist in rounding out the physician's a mamentarium; still, it would be a mistake to conce

ıe idea that the entire field of medicine revolves ›out the art of physiotherapy.

Dr. Grover has presented in his little book many teresting discussions which appeal to us. He deals successive chapters with, High-Frequency Currents; ledical Diathermy; Surgical Diathermy; Blood Pres-ıre; Pain; High-Frequency Practice; Diseases of the ye. The text proper is followed by an Appendix ›ntaining a questionnaire which permits the physi-an to quiz himself. It also contains, in the form of ı Appendix "B," the author's presidential address, elivered at the third annual meeting of the Western lectrotherapeutic Association, held at Kansas City, lo., in 1921. A glossary of terms used in electro-ıerapy and an index complete the text.—Clinical ledicine, Nov., 1922.

Diseases of Women—By Harry Sturgeon Crossen, I. D., fifth edition revised and enlarged, with 934 ngravings, including one color plate. St. Louis, Mo., . V. Mosby Company, 1922. Price, $7.00. This tandard text book has been constantly growing in rofessional popularity and is now recognized as one f the outstanding authorities on the subject.

The edition has afforded the author an opportunity › thoroughly revise and bring up to date the advances ı X-ray therapy and radium in their relation to ma-gnant diseases and fibroids of the uterus; to dis-inguish between physiological and pathological hanges in the endometrium; and the pathology of the ubinvolution of the uterus; among other new fea-ures. A beautiful set of photo-micrographs eluci-ate the microscope anatomy and pathology of gyne-ology. These are the work of Dr. Otto N. Schuaez, vho has been devoting several years to their selec-ion and development.

Dr. Hugo Ehrenfest contributes the chapter on ndicrinology. Altogether the fifth edition of Crossen s a monument to the gynecological specialist in every lepartment. The work should find a place in every loctor's library.

GEO. CLARK MOSHER.

Gonorrhoea and Impotency, Modern Treatment.—3y Edwin W. Hirsch, S. B. M. D., member of Ameri-an Electrotherapeutic Association, first Lieut. M. C., .. S. Army, with an additional lecture on Ultra-Violet Radiation by A. J. Pacini, M. D., colored illus-rations from life; 172 pages. 1922. The Solar Press, Chicago, Ill.

The author of this practical little book starts off vith the idea that we do not need to grope our way arther in darkness looking for cures for venereal liseases, but that we have these cures now and what ve need to know is how to apply them. That is vhat the general practitioner wants—stated in an ıonest and understandable manner. This Dr. Hirsch loes in his book in a series of lectures, nine in all.

Our Medicine Men.—By Paul H. De Kruif. 237 ›ages. Published by The Century Co., New York. 1922. Price, $1.75.

This scurrilous, contemptible book, full of untruths ınd misrepresentations, aims to degrade the medical profession in the most extreme degree, using very mis-leading and dubious phrases. The author is very illog-cal and misuses the terms "science" and "art" throughout. Empiricism seems to be his idea of science. He pretends to give a definition of "science," but fails miserably. He goes from one extreme to another. He writes a heterogeneous, conglomerate jargon. No doctors seem to occupy a middle ground in this illusory world. Whenever he can he links the ridiculous with the sublime. He refers to physicians in slang as "medicos." He makes out a very per-nicious straw man in various parts of his animadver-sions and then proceeds to pick him to pieces, which seems to give him the idea that he has done something wonderful. In his eyes there is no treatment by his creatures, only nostrums. He has a jaundiced view of everything, and sees no good in anything. He has made his own mire and wallows in it. Like Mrs. Eddy, he seems to think that he has settled the controversy that he started. Whoever or whatever he is harpoon-ing at is befogged by his wordplay. I understand that he has had two years' instruction in bacteriology in a medical school. Why did he not complete his medical course? Was he a failure? He states that he taught bacteriology for a while. Why did he stop? Was he a failure? Disraeli said, "The critics are those who have failed in literature and in art," and. I might add, "other subjects." It is a waste of time to read this book. He has nothing to offer. The whole thing is beneath notice. I regret wasting my time and this space on it. The Century Company must have been hard put for something to publish when they printed this rubbish.—Medical World.

Note—This man De Kruif is the author of "Vaccines for Broken Legs," which is reviewed in our editorial department.—Ed.

The Anatomy of the Nervous System, From the Standpoint of Development and Function—By Stephen Walter Ransom, M. D., Ph. D., Professor of Anatomy in the Northwestern University, Medical School, Chicago. A book of 260 illustrations, some of them in colors; published by W. B. Saunders Co., Philadelphia and London, 1922; price, $6.50.

Development and functional significance of structure is the leading thought held out to the neurologic student that he may see the "Nervous System in its relation to the rest of the living organism"; an attempt to brighten and lighten dull, structural details with entertaining, fascinating "functional significance"; a picturesque anatomical neurology as the route of the least mental burden, of the least application resistance on the part of the student, to a practical grasp of the fundamental units of the physiological and clinical knowledge of Neurology; and these are only acquired after intimate anatomic fundaments of the Central Nervous System.

The author's teaching by illustration is superb; many original illustrations, some are modified up to date and some are well selected. The descriptive text tends to the simplified accuracy, understandable to student and physician and real teaching. For instance on page 109 the most simple and clear illustration of the Lateral Cortiscospinal Tract (the old Crossed, or, Direct pyramidal Tract.) Again on page 156 and 184 is Cajals illustration of the trigeminal ganglion and the central ascending and descending fibre routes that every medic should thoroughly know before tampering with the fifth Nerve. On page 337 is a most simple, but intelligent illustration of the efferent and afferent nerve fibres in relation to the spinal cord, the sympathetic ganglion and visceral nerve distribution more often debated by the local speaker for the noise he makes rather than the information he emits. A surgeon's intimate knowledge here would tell him of past embarrassing errors. The author not only knows his subject, but also demonstrates remarkable teaching ability in his most modern and up-to-date book on the Anatomy of the Nervous System.

S. G. B.

NOTE—The Medical Herald's Kansas City office will supply any book reviewed in this department at publisher's price, prepaid. We can also supply any book by any publisher in the world. If an order for two books be sent at any one time, the purchaser will be entitled to a six months' subscription to the Herald.

Fiction for the Doctor

BELIEVING that the average doctor is a human being, and therefore requires a certain amount of recreation and relaxation after his day's strenuous labors among his patients, we have compiled a list of the latest fiction from various publishers which we commend to the consideration of our readers.

"BROKEN BARRIERS," by Meredith Nicholson. Charles Scribner's Sons. Price $2.00.

An interesting book in which the author combines the talent of the novelist with the keen insight of the writer on social questions. Its theme will go directly to the very heart of every full-blooded American. Grace Durland, the heroine, is typical of thousands of girls who find themselves confronted by a serious problem to which no solution is apparent. To tell more of the plot would be to spoil the story. Read it.

"ON TIPTOE," a Romance of the Redwoods, by Steward Edward White. George H. Doran Company. Price $1.75. Frontispiece in color.

An entertaining romance of the great out-doors by a noted author, who can put the breath of the Redwoods into a beautiful love story. A gift that will be appreciated.

"DECEMBER LOVE," by Robert Hichens. H. Doran Company. Price $2.00.

The author of the "Garden of Allah" has in his new novel created a theme most daring, calling for a power and delicacy that few novelists achieve. The theft of the Sellingworth jewels in Paris is a sensation that is dealt with most cleverly. This book, unless started upon early in the evening, will keep you up late.

"THE BREAKING POINT," by Mary Roberts Rinehart, author of "Dangerous Days," etc. George H. Doran Company. Price $2.00.

The press and public are discussing this new book, which is essentially different from any story hitherto written by Mrs. Rinehart. It is especially enticing to the physician by reason of the fact that the theme is woven around the figure of young Dr. Livingston while another doctor takes an active part in the picture. The reader will comprehend the significance of the title when the plot is unfolded.

"JOSEPH GREER AND HIS DAUGHTER," by Henry Kitchell Webster. The Bobbs-Merrill Company. Price $2.00.

This book was one of December's best sellers. Into this entertaining story the author has again used his characters from the "Real Adventures," "An American Family" and "Mary Wollaston," but the scenes are cast in new environments and under varying conditions. Joseph Greer and his daughter Beatrice are the central figures. James Weber Linn says that this book is the best thing Webster has ever done.

"THE LITTLE MIXER," by Lillian Nicholson Shearon. The Bobbs-Merrill Company.

A delightful little gift book especially suited to the holiday season.

"MAID AND MAN," by Elinor Glynn. J. B. Lippincott Company. Price $2.00.

This very popular book is now in its third edition, and we would advise our readers to secure a copy without delay. The author's name is sufficient guarantee of "solace at the twilight hour."

"THE GLAND STEALERS," by Bertram Gayto J. B. Lippincott Company. Price $1.75.

The timely and uproarously amusing story of grandpa's rejuvenation and Grandson George's co sternation. Will monkey glands bring back youth Read this provocative mixture of scientific theory a fiction. Whatever you may think, it will keep yo smiling.

"HER UNWELCOME HUSBAND," by W. George. Harper & Bros.

This novel by our most penetrating analyst of fe inine psychology reveals the secret thoughts of lovely woman, who is unhappily married.

"THE VEHEMENT FLAME," by Margaret D land. Harper & Bros.

"Mrs. Margaret Deland's newest novel, 'The Ve hement Flame,' is a good book; the old-fashioned kin that may be read of an evening before all the ol people without making father fidget. This novel old-fashioned and dear. It harks back to the tim when right and wrong and God and everything had place in our fictional literature."—Wm. Allen Whit

We will furnish any of the above books, postpa prepaid, on receipt of price. The Medical Herald a Electro-Therapist, Kansas City, Mo. If books (me ical or fiction) to the amount of $10 be ordered, year's subscription to the Herald ($2) will be i cluded gratis. Open to both old and new subscriber

"WATCH YOUR STEP"

[News item from daily press: "Two men were di covered lying unconscious in an alleyway in Chica Upon examination it was discovered that they h both been robbed of their interstitial glands. T operation evidently had been performed by an e pert.]

Come all you blooded, peppy men,
And listen to my tale;
For Age, on Youth, has made a call,
And nothing will avail.
They want your glands for their new life—
An awful price they'll pay;
So, better watch your step, my boy,
Keep eyes skinned night and day.

The "Glandit" is a cunning guy,
He spots you on the run;
A coffee bag goes o'er your head,
And some place you are 'spun.'
You're doped, my boy, and yours are gone;
And when your mind comes back,
You are lying in some obscure place,
With an awful empty sack.

You may not die; but what is life
When those two things are gone?
Each day you wonder where they are,
And who they are swinging on.
No doubt some duck, who quit the chase
Full twenty years ago,
Is prancing down the crowded street,
Chock full of golden glow.

Old men—you need not have a fear;
They'll never tackle you;
They know your dream is over,—
That your's will never do.
You can laugh, just like the fellow
Who has drunk up all his booze;
And sees the Bootleg sneaking in
When there is naught to lose.

"OLD PING."

Medical Melange

AGE AND RELIABILITY

is, unfortunately, fashionable in these days of alled scientific medicine, to question or even deny practical therapeutic value of certain "old fash- d" drugs. Expression is often given of the re- that the medical profession seems to be getting y more and more from that thorough knowledge lrug action which was possessed by the old time or. The latter used a number of remedies, more ess empirically it may be, but of whose action and ct he was reasonably certain. Take Viburnum for nple, there are those who today, from a more or theoretical standpoint, deny the actual efficiency Viburnum. Yet, experience which is admitted to the best teacher, has shown rather conclusively, in certain disorders or derangement of function he female, the administration of Viburnum is fol- ed by beneficial action and effect. Physicians of generations used Hayden's Viburnum Compound, l it carefully and intelligently and noted beneficial ilts therefrom. There was a time when the use he knife for the relief of gynecological ailments e to be regarded as having been abused, reaction owed and a large portion of the medical profes- came to rely more upon drug action than upon gical operation. There are, of course, many cases which operative procedure is absolutely necessary. re are many other cases in which considerable d may be accomplished by the administration of h agents as "H. V. C." The practical physician not have too many strings to his therapeutic bow. If he has not become acquainted with H. V. C., he should certainly do so and a request addressed to The New York Pharmaceutical Company, Bedford Springs, Bedford, Mass., will bring sample and interesting literature regarding this old and time-proven product.

BETA-EUCAIN AND EUPHTHALMIN ARE NOT NARCOTICS

Under date of November 21, 1922, we were informed by the Bureau of Internal Revenue, Office of the Fed eral Prohibition Commissioner, that our products—Beta-Eucain Hypdrochloride, Beta-Eucain Lactate and Euphthalmin Hydrochloride are not subject to the Harrison Narcotic law, as amended by the act of November 23, 1921, and consequently, our customers need not order same on narcotic blanks as heretofore, or keep any record of such transactions.

We have no doubt that you will welcome this decision, and will ask you to advise your customers in turn.

You will find these products listed in our price list of S. & G. products. We are carrying ample stocks, and can therefore take care of orders promptly.

Thanking you in anticipation of your kind attention, we are

Very truly yours,
SCHERING & GLATZ, Inc.

TARTAR EMETIC INTRAVENOUSLY

In the entire history of therapeutics no drug has met with more prejudice than antimony potassium tartrate, known as tartar emetic. It is an indisputable fact, demonstrated by the profession, that tartar emetic can never be safely administered per os, as it proves a gastro intestinal irritant, excites nausea and depresses the heart and nervous system.

"The intravenous injection of antimony potassium tartrate," wrote Christopherson, "raises questions of

The Management of an Infant's Diet

Mellin's Food contains 58.88 per cent of Maltose
Mellin's Food contains 20.69 per cent of Dextrins

a proportion of

Maltose and Dextrins

best suited to the carbohydrate needs of the average baby.

Mellin's Food contains 10.35 per cent of Cereal Protein.

Mellin's Food contains 4.30 per cent of Salts which consist mainly of Potassium Salts, Phosphatic Salts, and a small amount of Iron.

These facts should be considered in selecting a modifier of milk for infant feeding and these facts point out some of the reasons for the success of Mellin's Food which probably is unparalleled in any decade since the beginning of the study of scientific infant feeding.

Mellin's Food Company, Boston, Mass.

considerable interest for the clinician." He asks how is it that so large a quantity of what we regard as a very potent and toxic drug may thus be introduced in the human body, when the maximum dose by mouth is so small. "The official V .D. dose of antimony potassium tartrate is 1/24 to 1/6 grain, but one may, with beneficial effect, inject into the vein at one dose, three grains, and repeat every other day for sixteen injections."

Tartar emetic is being extensively employed in the treatment of various tropical diseases, granuloma and even syphilis. Loeser has studied the toxicity of tartar emetic and has established biologic tests pharmaceutical and chemical standards for an intravenous solution of tartar emetic.

Any physician desiring the literature on antimony potassium tartrate intravenously can obtain a considerable accumulation by writing the New York Intravenous Laboratory, 100 West Twenty-first street, New York.

A LIQUID BLAUD

Ferrous carbonate, long recognized as an effective hematinic and reconstructive in the treatment of anemia, oxidizes on exposure to air. To prevent this it has usually been massed and made into pills. The pills tend to become hard and may not disintegrate readily in the intestinal tract. Since iron is absorbed mainly through the duodenal mucosa, slow disintegration is another distinct disadvantage.

Liquid Blaud is an improvement on the old methods, for it makes possible the administration of fresh ferrous carbonate unchanged, in a finely divided state—its most available form.

The use of Liquid Blaud permits you to vary the dosage of iron at will. You can direct that one grain or five grains of Blauds be taken, and you can alter the dose without prescribing a new pill or tablet to obtain the desired grainage.

If large doses of iron constipate, smaller doses may produce even better hematinic effect. Liquid Blaud is less likely to constipate than any other form of Blaud's Mass. In the reaction which occurs when the dose is mixed with the water and the greenish flocculent ferrous carbonate is formed, there is also formed a small amount of potassium sulphate. This, with the glycerin present, counteracts the constipating action of the iron.

Clinical results over many years of use have proved Liquid Blaud both acceptable and effective where iron is the indicated remedy. It is especially useful in chlorosis as well as for anemic children.

Lilly's Liquid Blaud is supplied by the drug trade in four-ounce bottles only: Plain, with arsenic, 1/60 gr. arsenous acid to each teaspoonful; with strychnine, 1/100 gr. strychnine sulphate to each teaspoonful; and with arsenic and strychnine 1/60 gr. of arsenous acid and 1/100 gr. of strychnine sulphate to each teaspoonful.

Address Eli Lilly and Company for literature and demonstration ampoule.

ADRENALIN

When the pressor principle of the suprarenal gland was first isolated it was called Adrenalin by the manufacturers who introduced it to the medical profession. The derivation of the word is obviously from the adrenal (or suprarenal) glands. And for several years after the product was made available commercially, it was reported upon in the medical press, both here and abroad, as Adrenalin. In fact the full momentum of clinical observation with reference to the various applications of the pressor or blood-pressure-raising principle of the suprarenal gland was provided by means of Adrenalin, the Parke, Davis & Co. product. This fact is of some significance, even now, for two reasons: First, Adrenalin has always been standardized, we understand, by the blood-pressure method; second, all products of this class are subject to molecular changes which have a bearing on their activity; and long experience in manufacture has doubtless revealed not only the danger but also how to avoid it.

Adrenalin blanches the inflamed conjunctiva when applied in a dilution of 1 to 10,000; the blood-pressure of anesthetized dogs is materially increased by the intravenous administration of less than one six-thousandth of a grain. This phenomenally powerful drug is applied topically in solution to mucous membranes in non-infective inflammations of all kinds, including hay fever, administered subcutaneously in bronchial asthma, urticaria, serum anaphylaxis, and certain forms of hemorrhage, and given by vein in shock and collapse. The heart that has ceased beating has been known to respond to the direct application of Adrenalin.

Parke, Davis & Co. offer a booklet on Adrenalin to interested physicians.

HAVE YOU A THERAPEUTIC LAMP?

If not, the addition to your office equipment of such an appliance may prove advantageous, as it has to many others. It provides an excellent way of applying light and heat of varying intensity, to any part of the body surface. It is a matter of quite common observation that pain and stiffness, as of a joint or set of muscles, are promptly and decidedly relieved by the well regulated application of therapeutic light and heat. Anyone whose office is wired can avail himself of electricity in this way, therapeutically; and profitably in more senses than one.

The Sterling lamp is highly spoken of by those who own one. With it, electrical heat or heat energy can be regulated to a nicety. It is simple in construction and not too expensive. Prospective buyers may write to the Sterling Therapeutic Lamp Co., 544 Garfield avenue, Chicago, Ill., for descriptive booklet and trial offer.

A SUPERIOR SEDATIVE

The advantages that Bromidia (Battle) possesses as a sedative agent have secured for it much favor in the hands of exacting physicians. In sleeplessness Bromidia (Battle) will be found of high value. Its marked sedative properties reduce nerve tension and compose the patient, preparing him for restful sleep that follows the administration of Bromidia (Battle).

The formula of Bromidia (Battle) is practical and matter of fact, the superiority of the combination residing in the purity of the constituent drugs and the skill with which it is manufactured.

Use Bromidia (Battle) whenever you need a sedative agent of potency.

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An Independent Monthly Magazine

Vol. XLII FEBRUARY, 1923 No. 2

Original Contributions
(EXCLUSIVELY FOR THE MEDICAL HERALD)

THE IMPORTANCE OF BREAST FEEDING

J. RAYMOND MARTIN, M. D.,
Sioux City, Iowa.

THE purpose of this paper is not to add new thought to what already has been said, but to ask for more consideration of the st rights of the new born infant.

[1]Breast feeding has been the most important ngle factor in the reduction of infant mor- lity during the last decade. The younger the by the greater the necessity for breast milk, it is to live and grow into health. A recent vestigation made by the Children's Bureau veals the fact that a little more than 2 per nt of the babies who had been breast fed clusively during the first six months died ring the first year of life while the mortality artificially fed infants during the same per- d was six times as great. It is a fact that east milk is the principal safeguard of life ring the first six months of a child's ex- ence. Breast milk protects the child against fection and nutritional diseases, not only in e first few months, [2]but in the later years, in- viduals who were breast fed infants exhibit eater resistance than do those who were bot- e fed.

[3]The Children's Bureau, after an intensive vestigation in infant mortality, found that fant mortality is higher for bottle fed than r breast fed infants; further, that this mor- lity is directly proportional to the amount of ttle feeding. The studies made in New Bed- rd, Mass., Akron, Ohio, Manchester, New ampshire, and Brockton, Mass., have demon- rated that the mortality rate for artificially d infant is three to four times as great as those who were breast fed. The rate varies according to the Hygienic, Economic and Industrial conditions. In rural communities where maternal nursing is prevalent, infant mortality is low. Even in the most crowded districts of New York City where the hygienic and economic conditions are poor, a much lower infant mortality is found among such races as Jews, Irish and Italians who nurse their infants for several months, than among the races where [4] artificial feeding is more common. During the seige of Paris when food was scarce, maternal nursing was the only means of infant feeding. France then enjoyed the lowest infant mortality in her history. When the late world war was going on and Belgian mothers were forced to nurse their babies while on a starvation diet, the infant death rate was lower than in normal times. Many more examples could be given to show that infant mortality is inversely proportional to the amount of breast feeding in a community.

No substitute has yet been found that can take the place of breast milk in feeding the human infant. Given in the proper quantities, it is the food of choice in almost every case, for it is the only complete food and is less liable to contamination. It is cheaper and requires less care than does other means of infant nourishment.

[5]The largest infant mortality during the first six months of life is due to diarrhea .That bottle fed babies are more susceptible to diarrheal disorders than breast fed babies in a ratio of five to one is axiomatic. Other infections to which infants are commonly susceptible are those of the respiratory tract, genito urinary tract and the middle ear; and seem to be more prevalent among bottle fed babies. Infants whose diet is breast milk, either whole or in part, make the greater per cent of recoveries. If a child is breast fed and he is able to have his regular rations during his illness, recovery is much more certain. [5]The state of the baby's health has an influence not only on the susceptibility of the individual to infection, but also on the severity and end results. There is no better insurance of an infant's

Read before the Missouri Valley Medical Society eld at St. Joseph, Mo., September 21, 1922.

health than to give him the breast milk nature has provided.

[6]The nutritional diseases such as Rickets, Tetany and Scurvy are essentially diseases of artificially fed infants. [7]Hess has found that breast milk contains more of the essentials necessary for infant growth than does any artificial food. It is the only complete food for the growing infant.

The premature, like the sick infant, has a very low digestive power and needs to assimilate large quantities of food with the least effort. [8]In a recent report of a series of metabolism studies, Fritz Talbot found that breast milk is the only food sufficiently assimilated by the premature infant to produce a gain in weight. Its value is of equal importance as food for the sick infant and many hospitals are now making efforts to secure a supply for the infants acutely sick.

[2]The most common excuses for removal of the baby from the breast are insufficient milk supply, insufficient gain in weight, poor milk, green stools, milk dried up, etc. These troubles are usually caused either by under feeding or over feeding; very rarely is there any defect in the milk. Too little attention is given these symptoms and no effort made to determine their cause; the treatment is too often artificial food.

Dietrich has recently reviewed 1000 cases from his private practice to show us what is happening to the infants of the middle classes of our population. This class employ either an obstetrician or a general practitioner during and after confinement. He very emphatically emphasizes the fact that the attending physician is responsible for the two patients, the mother and the child, and that the fate of the new born infant is in his hands. "The obstetrician must feel that the state of nutrition and general well-being of the young infant is to a great extent, dependent on the viligance he devotes to it, and to the time and care he dedicates to establishment and maintenance of breast feeding. Only then does he fulfill the obligations he assumes when he consents to care for the mother during parturition.

He found that 37 per cent of these infants were nursed at the breast three months or less, 40 per cent were nursed eight months or more, 9 per cent of the mothers nursed their infants less than one week. It is evident that very little attention was given these infants, for, in only eighty-four instances was there an attempt made to determine the quantity of milk or start complemental feeding; 75 per cent of this number were under the care of the author.

He was able to ascertain why 371 of these babies were robbed of their breast milk and found fifty different excuses, nine of which he considers as valid; these are: death of th mother; pregnancy; adoption; some cases c breast abscess; tuberculosis; acute illness c the mother; severe operation upon the moth er; mother working; and severe toxemia of th mother. Only sixty-four of the three hundre and seventy-one came under these headings of these, thirty-five are doubtful. Three hun dred and forty-two of these infants were de nied breast milk for insufficient reasons.

[2]Sedgwick has demonstrated by means c complemental feeding that nearly every chil can have a large per cent of its feeding, breas milk. He gives us the following essentials fo maternal feeding:

1. Conviction on the part of ths physicia that the mother can nurse her baby.
2. Conviction on the part of the mother tha she can and will nurse her baby.
3. Stimulation of both breasts by nursing th baby at regular intervals.
4. Emptying the breasts by manipulatio after each nursing.
5. Patience and perseverance on the part c the physician and mother.

[9]Weighing the child with clothes before an after feeding at intervals for two or three day and obtaining the average is the simplest meth od of determining under feeding. This is valuable guide as to the amount of milk to b given after the breast feeding.

[4]By complimental feeding is meant givin an artificial feeding after the breast has bee emptied. After each feeding all residual mil is expressed from the breasts by hand; thi stimulation at regular intervals results in in creased glandular activity. Under this treat ment, the quantity and quality of milk will soo increase, in many cases to such an extent tha the bottle feedings are refused. If the supple mental method is used and a bottle given onc or twice during the day, another bottle is soo called for and before long the child is no longe depending on the breast, but is bottle fed, fo the demand on the glandular tissue of the breas has been gradually reduced because of the de creased demand for its activity.

Recently many convincing reports are com ing to the profession regarding the establish ment, maintenance and reinstitution of breas feeding. [4]Sedgwick has demonstrated by fol lowing practically every baby born in Minne apolis during a stated period that 90 per cen of all babies can be nursed at the breast.

If every mother was properly encouraged an made to realize how perilous the first months of life were to her infant, and the amount o protection breast milk offered; and if every medical man when called upon to decide the question of discontinuing maternal nursing during the early weeks of life would feel tha

decision was to play a large part in the
e of the individual, fewer babies would be
)bed of their rightful inheritance and a re-
:tion of infant mortality would follow.

Conclusions

. Infant mortality is directly proportional to
: number of artificially fed babies.

2. Most mothers are capable of maternal
rsing.

3. Breast milk is the only complete food for
: human infant.

4. Fewer infants would be robbed of their
htful inheritance, if more consideration
re given the subject of breast feeding, re-
ting in a lowering of infant mortality

.. Bulletin Children's Bureau, J. A. M. A.,
l. 78, No. 41, p. 281 Ab.

2. Deitrich, Henry, J. A. M .A., Vol. 79, No.
). 268.

3 Oppenheimer, Ella, Bulletin Children's
reau, Series No. 5, Bureau Publication No.

4. Mulherin, W. A., J. A. M. A., Vol. 75,
. 13, Sept. 25, 1920.

5. Mitchell, Graeme, N. Y. Med. J. Ped.,
g. 3, 1921.

6. Byfield, Albert H., Illinois Med. J., Oct.,
)1.

7. Hess, Julius H.. J. A. M. A., Vol 79, No. 7,
552.

8. Talbot, Fritz B., A. J., Dis. Children, Vol.
No. 2, p. 95.

9. Foote, John A., Washington Medical
nals, Vol. 16, No. 2.

10. Herrman, Chas., N. Y. Med. J., Ped.,
g. 3, 1921.

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Wash parts with soap and water daily. Ap-
y freely and often for three or four days.

DIABETES MELLITUS

By DR. L. H. FUSON, St Joseph, Mo.

THIS paper is based on the study of a series of twenty-four cases of diabetes mellitus seen in the past two and one-half years, devoting particular attention, in the paper, to the diabetic's co-operation with his physician. Measures to keep patients more co-operative and closely followed by the physician are discussed. Diabetic literature is and has been ample in the discussion of the dietary management of diabetes, inviting attention to improvements in diet mixtures. The importance of diet is primary and paramount in the treatment of diabetes, but there are other phases pertaining to the diabetic atttiude which I believe this series illustrates, and which I regard as important, if not essential, factors in the successful treatment of the disease. These factors are the educating, enthusing and persistently following up of the patient.

We have long associated the symptom complex of diabetes with an impairment of the pancreatic function, specifically with the secretion from the islands of Langerhans. We have fairly conclusive evidence of this from the study of clinical cases and animal experimentation. The chief characteristic of this impairment is the decreased ability of the organism to utilize available glucose. In the absence of sufficient amounts of oxidizing glucose there further results a decreased ability to properly oxidize fats and protein such as leucine, tyrocine and phenly-alanine. When this condition exists, it has been further shown that feeding glucose in excess of the individual's tolerance stimulates increased sugar metabolism and brings further fatigue to the impaired function, and that supplying available sugar below the sugar tolerance serves to rest this impaired function and presumably to obtain a higher capacity for sugar utilization. The improvement in any treatment of diabetes is by virtue of this principle. How far this recuperation can go in any case cannot be anticipated before hand and the most reliable prognostic criterion we have is the reaction to treatment. So far as we know this recuperation is never complete, which means that improvement but not a cure of the disease may be expected. It is evident then, that to obtain optimum results, treatment should begin early and be continuous.

In this series twenty-four cases of diabetes were either examined or examined and treated. As regards sex, age, duration of the disease, types of complications and financial status of the patient, the series is fairly representative.

Read before the Medical Society of the Missouri Valley, St. Joseph, Mo., September 21, 1922.

Treatment was recommended in all. Seven cases refused to accept treatment. Nineteen accepted, two of which did so only in part and soon failed to follow up. In the seventeen cases accepting adequate treatment there were, when the case presented for treatment, complications present as follows:

Coma—Five cases.
Chronic osteomyelitis of jaw—One case.
Pulmonary tuberculosis—One case.
Diabetic gangrene of the foot—One case.
Chronic cystitis and pruritus vulvae—One case.
Vasculo-cardio-renal disease—Four cases.
Carbuncle—One case.
Diabetic neuritis—One case.

All cases treated, with the exception of two, showed acetone and diacetis acide in their first urinalysis. None of the seven cases refusing treatment, at the time they presented themselves, showed any complications. Two of this group refusing treatment have since died in coma. A third now some two years after I first saw him is suffering with modertaely advanced pulmonary tuberculosis. The other four cases of this non-treated group are as well as I am able to know, still without treatment, waiting probably for the development of distressing symptoms of some complication to drive them to a physician. Of the seventeen cases who accepted adequate treatment five were admitted to the hospital in coma, four of whom died within the interval of four to fourteen days after beginning treatment. All of the thirteen treated cases living, are still under observation, following treatment, sugar free, and improved with the exception of one who has not been kept on a strict diet because of complicating pulmonary tuberculosis. The time of observation for the thirteen treated cases still living, varies from four weeks to two and one-half years. Seventy per cent of the entire series had had previous contacts with from one to many physicians. None were at the time I first saw them following any definite diet as advised by previous contacts. I conclude that these contacts as well as the contacts I had with the nine cases refusing treatment, resulted in some measure as a failure in regard to the patient's treatment.

It is interesting to note in the histories of the seventeen cases accepting and following treatment, that 70 per cent presented themselves because of disturbing symptoms of complications while in the cases refusing treatment, complications were absent in all. These statistics illustrate clearly that diabetics are very prone to postpone a persistent followed up treatment until complications develop, and impress one that the co-operation between patient and physician is unsatisfactory for good therapy, particularly in the earlier course of the disease. The gravity of this situation from the standpoint of longevity to the patient is apparent when considered in reference to the remarks in the first part of the paper.

It is fair to assume, in the many contacts these patients had with physicians, that the treatment previously established, so far as diet was concerned, was fairly similar to the one they followed later under my care. I believe that we are not justified in saying that the failure of the patient to adhere persistently to the earlier treatments was because the treatments were fundamentally wrong or that the patients were at fault. The patients as well as the general public are victims of a lack of proper education. The fault lies largely with us as members of the medical profession who should not stop with telling them what and how much they can eat, but to create for them an environment more condusive to good diabetic living, and instill in them an enthusiasm that will leave them less liable to the pitfalls. We have been too easy to temporize with them or to allow them to temporize with us. We have discharged them when they were desugarized with too little after assistance, as a result of which they were no better off than before and oftimes, in mental attitude, in a far worse state, in that they developed a lost confidence, looked with suspicion on subsequent contact advice, and were in proper frame of mind to grasp for the cure of some quack institute, osteopath, chiropath, or other cult, to finally come back to the physician in coma or other end stage. We then perhaps blame the patient or accuse the quack when we should regard the circumstance as a weakness of our method. This is not tendered in the light of criticism, but in defense of our standards and for better results for diabetics.

In handling the nineteen patients in this series who accepted treatmnet, all fundamentally had individual study and were established on their several optimum diets. This having been done I want to emphasize that every means was taken to show to the patient what we were doing. He kept in close touch with the dietition, learned to work calory tables and before being discharged from close observation was able in most instances to compute and also prepare his own diet. For example, he was able to take an order for the twenty-four-hour diet as so many grams each of fat, protein and carbohydrate and build up from foods of his choice within his limits a day's menu to conform in amounts with the order. For those who could not apprehend this there was always some member of the family who could. This gave the patient the most elastic sort of a diet and allowed the widest range of food varieties. It was surprising to see how quickly the aver-

ge individual acquired this ability and how uch more enthusiastic he became in adhering his proper diet. It might seem that this is t practical in that all patients cannot go to the hospital where the services of a dietition e available. Not all of the series were hostal patients, though it is preferable that they for the first period. In no case was a patient t hospitalized for the reason that he could t pay. Charity cases were handled just the me as the pay patients. We find that our spitals are fitted to care for the demands of e people in the territory in which they serve, d can hospitalize the poor diabetic regardss of his financial status. We handled at me and office those who could not be hostalized giving them the same information out diets. This was a disadvantage in that took too much of the physician's time with tails which could have been handled by a rse or dietition and did not develop the enusiasm of the patient so well as when hained in hospital where he had contacts with re people. For other reasons such as dangrs of acidosis and complications which make se observation necessary, the hospital is eferable and often imperative. Thirteen of e seventeen cases who accepted and followed atment, were handled in the hospital. When e patient was discharged he was sent home, t kept under observation frequently, not ly by myself, but also by the family physiin at home, if he had one. He was furnished th a copper solution and shown how to make daily qualitative test of the urine. In case test was found positive he had instructions report at once for adjusting his diet. If the spital dietition and diet kitchen had been a rt of any discharged patient's education he s frequently told to visit the dietitian, when porting back for subsequent observation, for purpose of having demonstrated to him new methods of preparing diabetic menus ich he had not already known. Frequently eral were sent purposely to the dietitian in group in order to give them the added ensiasm which is seen in clinics with diabetic sses. Patients, particularly the elderly es, often ask after having been in the hosal only a few days, when they can go home how long they will have to remain in the spital. I regard this as an index that they ve not been sufficiently enthused and that n to discharge them would be to fail. I ually answer them by sending them down to dietitian to help make out their menu. Many es a few more days will find the patient in entirely different frame of mind. He will n tell me what he is doing himself, has fortten about going home and is developing thusiasm which will make him co-operative bsequently. From the beginning of treatment the patient was never allowed to feel that he would be discharged cured at the end of his first period of close observation. The attitude held toward the patient was one of developing in him that he was to learn in this time how to live at the end of the period and that he was beginning a regime to be continuous. Unless the patient was given a maximum education about himself and sufficiently enthused to co-operate subsequently in a close follow-up, his result was considered as a failure in some degree.

In the diabetic, just as in the normal, there is a preference for sugar over fat and protein. Since the diabetic will be in some degree less able to derive his energy from carbohydrates he will have to draw his fuel supply from greater amounts of fat and protein than does the normal individual. He can and will burn fat and protein but not by choice. He cannot be left to follow the dictate of his appetite, but will have to follow a diet less to his choice. Herein lies one of the difficulties in diabetic co-operation. Many have never learned to use will-power or to follow control. For these we must not throw up our hands in despair, but build about them an atmosphere to compensate for their weakness. It would be highly desirable to have a well organized social service system operating perhaps from the hospital, which could go into the homes of these people and make sufficient contacts, not only with the patient, but patient's associations, to develop and perpetuate a diabetic atmosphere that would enlist the interest of all of the patient's family and friend contacts. Such a system is in operation in connection with hospitals and clinics in many of our larger medical centers and eventually will come to the smaller centers. There is no reason why we cannot have it. We will have it when sufficient interest is felt for the need of it. In the absence of such a system we have tried in building up the discharged patient's home atmosphere, to reach the patient's contacts through him and through contacts with such of his family or friends who came into our scope. It is not a difficult matter for the physician to develop a proper atmosphere of interest and enthusiasm among the hospital or office personnel who make contact with the patient. It is desirable to enlist as wide a group as is available and have as many sided contact of the personnel with the patient and such of his contact who come within its reach. We have found that such a method makes a fair working substitute for a well organized social service. In this way there can be developed in the diabetic's environment some very valuable support to keep him encouraged and to follow control. By emphasizing these measures supplementary to dietary measures we have as

above stated been able to keep all the living cases out of the nineteen who, accepting treatment, following a diabetic regime with but two exceptions. For the five who refused treatment we had no opportunity to so operate. It is suggested that by a more universal employment of the above measures perhaps a general diabetic atmosphere would develop with a scope sufficiently broad to reach such cases as the above five for whom we had no opportunity to educate, enthuse or develop an environment.

In conclusion I would say:

1. Diabetics give poor co-operation in early stage of disease and are prone to postpone accepting and following up treatment until complications develop.

2. To get optimum results with therapy, treatment must begin early and be continuous.

3. Diet side of treatment is first and paramount, but the phase of enthusing and educating the patient and persistently following him up is very important if not essential to best results of diabetic therapeutics.

REMARKS ON CANCER

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A RETROSPECTIVE study of cancer will convince even the most skeptical that the ancients many centuries ago recognized a malady which we now call malignancy.

No doubt they included many conditions which with our present knowledge are known to be benign.

Covering such a period of years is it any wonder the causes have ranged all the way from mysticism through all the many tissues of the body and included many extraneous agents such as articles of food, etc..

The definite cause of cancer has not been found, but many contributing factors have been determined and their influences so well defined that we are possibly justified in saying that few if any should die from external cancer if the public were as well informed on this very important subject as they are on tuberculosis and some of the more popular questions of the present day.

If cancer were not so insidious in its onset, but more painful, like the ordinary toothache, thereby attracting the attention of its host, and compelling them to seek relief at an early hour, much could be done and many saved from an untimely and terrible death. If the daily press would devote just half as much space to cancer and pre-cancerous conditions as they do to the liquor question, the human race would be benefited to such a degree both from a monetary standpoint and otherwise as to owe them an everlasting debt of gratitude, but none of our daily papers seem to regard the many deaths from this terrible disease as news.

That civilization is no longer the cause of cancer is now generally accepted; that all forms of plant and animal life are subjected to its ravages there is no longer any question; undomesticated animals, fish, fowls and reptiles alike fall prey to its destructive forces, varying, of course, in degree of frequency.

Whatever the cause, whether bacterial or chemical, it must be admitted that the cancer patient's system is either deficient in something the other fellow possesses or has that something that the other fellow doesn't possess that admits of its destructive processes.

Some have said that all cancers were in syphilitic subjects. How true this is I am not prepared to say. But two thoughts in this connection stand out in bold relief. viz., that syphilis is far more frequent than we ever dreamed of, and that cancer is increasing at an alarming rate. That both have the same Electronic reaction has been stated by those doing that type of work.

It does seem to the writer, however, that if the above is true there would be more claims made for the heredity of the disease as syphilitic parents would have more cancers follow in the offspring than those whose blood was untainted. In my own work I can not recall a single case in a young person coming for relief of a maligant growth where syphilis was suspected that reacted positive.

In the consideration of this great question there is yet that problem of how much trauma and other irritants might play in those afflicted with the Lues.

Too much praise cannot be bestowed on such ardent workers as Mr. Erwin F. Smith, plant pathologist of the United States Government, in his studies of Crown Gall (a malignant growth to the plant), also those who have spent vast sums of money and much time in the animal kingdom and elsewhere, but after all, as Pope says, "The proper study of mankind is man," and any results that are to be achieved must be done on human subjects and verified by laboratories reckoning with the human race, for in the study of the chemistry and metabolism of cancer there, and there alone, will the treatment be based.

It has been the work on the human being that freed the Bay of Rotterdam of its Cholera Vibrio; Havana, Cuba, the pest hole of earth, of its Yellow Fever, and the civilized world of Small Pox. Yet when we turn to our subject, Cancer, we still find the darkest page in all medical history. The cause is unknown and the treatment practically what it was with the

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icients. They burned them out with a hot on. We do the same, except we call it a iutery and heat it in the modern way with ectricity instead of fire, and the disease has ot only held its own in the fight, but is ad-itted by all to be alarmingly on the increase. Nothing that has been attempted up to the resent hour has to any extent mitigated the ivages of this dreaded drsease.

Since the cause is unknown it seems to the riter that any benefit to be derived must be irected along the lines that seem to be the ost strategical, viz., a supreme effort to teach ie public more about cancer in general, and re-cancerous conditions in particular; a better nderstanding among physicians about pre-ncerous conditions, and last and by no means ast, learn to treat the cancer patient as a sick atient and not direct our energies entirely to ie local condition.

In attempting to educate the public along is line, many points present themselves for onsideration: Geographical location, race, ex, food, sleep and neurotic influences, cloth-ig, occupation, irritation, habits of life and re-roduction; and to this I would add narcotic nfluences and possibly the ductless glands laying their part.

While divers efforts have been made to dis-redit all statistics, it is hard to reconcile the ist figures available under the present vital tatistic laws existing in various cites and ountres, both foreign and otherwise, which how that in European countries Switzerland eads the column with a death rate of 127.4 er 100,000, while Hungary has only 30.7. In ur own beloved country in the study of the arious states we find California furnishing 80.5, in the cities and 83.1 in the rural dis-ricts against South Carolina with 69.5 in the ities and 33.9 in the rural districts.

In 42 of our largest cities we find San Fran-isco leads with 102.5, against Savannah, Ga., ith a low per cent of 47.1, my own city of ouisville furnishing 61.1 and Kansas City 71.1.

One may say the larger percents shown in he cities is due to the many going there for reatment. If this be true wouldn't it logically ollow with the better facilities for treating ases, both surgically and otherwise, in the city ith its large population that it would actually ower the death rate? All statistics tend to how the disease less prevalent in the rural listricts.

The study of races tends to show the Ortho-lox Jew furnishing about one-third as many ases as the non-Jew. This is even more in-eresting when you come to realize the greater requency of marriage and frequent child bear-ng and length of life of these people.

So also the negro race and the Indian show ess susceptibility than ourselves.

In sex we find another important factor in the frequency of this disease, the female with her uterus and mammary glands, all of which have their regular and frequent periods of activity as well as quiescent time. A glandular tissue never at complete rest, the most favorable condition for the production of rapid and uncontrolable cell division (cancer). With this does it require any stretch of the imagination to at least suspect the present day dress unprotecting, though attractive, adding its part in irritation from heat and cold, at the vital hours when these structures are undergoing their physiological changes until they finally take on pathological changes.

Neurotic Influences

Again the hours of rest are so irregular, short and disturbed in these days of strenuous living in contrast to primitive man that the blood does not have time to obtain its life-giving elements during the hours of sweet repose that nature intended, vitality lowered, alkalinity diminished, and acidity intoxication produced.

Since we are learning more of electricity and that most, if not all things,, including our own bodies, are electrically controlled, the writer wonders if the cells of the body under high nervous influences might not be finally so disarranged that rapid division begins or cancer as we please to call it.

Without going into the details of food as a causative factor, we must admit that so far as statistics are to be believed they tend to prove that as meat eating increases per capita so also does malignancy.. The following is submitted for your thought:

In England vital statistic laws have been in use for many years and several years ago the per capita of meat eating had risen to 130 pounds of butcher meat to say nothing of the fish, game, poultry, eggs, cheese, etc. Now it is estimated at 180 to 330 pounds per year and cancer has increased four fold.

In other countries where meat consumption is less, so also is cancer.

Narcotic Influences

The general use of aspirin or acid-acetylsalycilate is so much used by the public that a suggestion is made, that might not its influences by increasing protein absorption, thereby increasing to a great degree the Amino-Acids, with its resulting irritation to all tissue cells finally causing wild and uncontrolable division.

The change in the ratio of acid and alkalinty the elements necessary for electric currents may so influence the electrons that control the cell that trouble begins by over-stimulation. (Gottleib and Meyers Pharmacology Experimental and Clinical by Halsey), Bastedo's Materi Medica), Physiology and Bio-Ochemistry by McLeod).

Many other causes such as reproduction, occupation, etc., might be spoken of if time permitted.

Diagnosis

This would require a volume if we began the various methods, both clinical and otherwise, of determining malignancy in the many places of our bodies that so often become afflicted with this dreaded disease.

We believe the time better used in the consideration of the more frequent pre-cancerous lesions, especially so if what has been stated by some writers in recent years be true, that tumor formation was always the late manifestation of cancer.

The so-called skin cancer usually has its origin in a thickened, black, or dirty looking mole or wart that has existed about the face perhaps for years. Just why the patient tolerated this unsightly spot through the many years of its harmless existence and had to be forced into its removal by its activity we have never been able to understand.

Cancer of the lip usually has its beginning in a fissure of rather long standing that has refused to heal, or in a thickened condition of the vermillion border from irritation of pipe stems, etc.

Cancer of the tongue or cheek usually have their beginning in an irritation that has been produced and kept up by the rough corner of teeth or irritations of fillings which are for the most part of the amalgam variety. Such fillings in their hardening process tend to cup like unto a wet board and bring the sharp edges away from the tooth wall, thereby forming a sharp and irritating edge which is often neglected.

It should be borne in mind that any sore on the lip that doesn't heal in three months should be excised, and any growth or raw surface on the tongue that has existed for six weeks is as potent of danger as one that has existed on the lip for six months.

Women past 40 should consult a competent gynecologist every six months for an examination of her pelvic organs and should any abnormal symptoms present in the interval go at once for a complete examination.

Any discharge serous or sero-sanguinous from the nipple at any age should receive immediate attention, especially if sero-sanguinous, as a beginning malignancy will probably be found in what was otherwise a harmless cyst. So also tumors in any part of the breast be viewed with suspicion. They should be regarded as malignant until proven otherwise, rather than innocent until proven malignant. Procrastination is the thief of time, and if we could only realize how dangerous it is to say to a patient when asked about a tumor in the breast, "Don't have anything done until it begins to give you trouble." Then it is generally too late.

All such tumors should be removed. Frozen sections made, if possible, at the time (while this is rather a hasty search), and if malignant the entire breast with the axillary glands and fat and all glandular bearing tissue such as the fascia removed.

In uterine conditions that are suspicious tissue can always be had for a thorough and comptete examination before any treatment is suggested.

Aside from the surgical aspects of the case comes the question of radiation. Our experience forces us to the conclusion that in breast cases they should, if possible, be rayed with radium used before operation, as the lymph channels are then blocked off and any straying malignant cells in the neighborhood of the original growth will be rendered harmless.

The general profession, as well as the laity should be taught that pre-operative radiation is far better than post-operative. At present the patients are not willing to spend the necessary time in the majority of instances to have this done.

It diminishes the vitality of the growth and considerably lessens the risk of both cellular and microbial inoculation. In some cases it renders the organ to be attacked more mobile and by so doing enables limits of operability to be enlarged. (Regaud, director of Biological Laboratory at the Radium Institute, Paris.)

The effect on the cell is shown by every grade from early death to slight reparable injury. The dead cells are removed by autolysis or phagocytosis, but the intercellular substances are resistant and absorbed slowly. Arguing from these premises, Regaud asserts that X- and gamma-radiations of very short wave length are elective poisons for nuclear chromatin upon, which, as is known, heredity depends. Hence the rays suppress or suspend cellular reproduction in a tissue. The next question is "Why and to what extent are neoplastic tissues radio sensitive? And the answer is found by the author in the indefinite reproduction of cancer cells. Since X- and gamma-rays of very short wave length are poisons antagonistic of cell reproduction, they are curative agents for cancer. Nevertheless, each variety of neoplasm corresponds to a definite position in the scale of radio-sensibility, and on this subject our knowledge is far from complete. The practitioner must definitely exceed the lethal dose for the tumor and fall short of severe injury to the normal cells.

In a highly radio-sensitive tumor (e. g. round cell sarcoma) the range is wide, and a suitable dose is easily chosen. In a little radio-sensitive new growth (e. g. squamous-cell, carcinoma or

idermoid epethelioma) the range is narrow, id the suitable dose is difficult to reach, the dio-therapy is not without danger.

The removal of cancerous cells and intercellar substances after irradiation is along the me lines of autolysis and phogocytosis that aracterizes removal of irradiated normal lls, but if the growth be ulcerated or if alpha- id beta-rays be used, there is a certain diffuse sintegration in which normal cells are no ore protected than the neoplastic cells.

The radio-sensibility of connective tissues id lymphoids malignant new growths, is as llows, the varieties of tumor being given in scending order of radio sensibility:

Lymphosarcoma, large and small round cell rcoma mixed cell-sarcoma, giant cell-sarcoa, myxosarcoma, spindle cell-sarcoma, fibrarcoma, Chandrosarmoca ,asteosarcoma.

It is to be remembered that the growth of the etastasis is apt to be more rapid after radio erapy, than after surgical removal. The relt of absorption of substances of the cells by e rays which exerts a favorable influence on, oris utilized by the development of colctions of cells that were otherwise latent.

The writer believes that with cancer of the east pre-operative X-rays in massive doses, ould be used before the growth is attacked. In the uterus, either radium or X-rays in conection with electro coagulation, should be eatment of choice. As surgery is not being llowed, however, it may be done by such relts that are gratifying to the surgeon. In e writer's own work he prefers fulguration, llowed by radium, as it is much easier to ply than the X-ray. Fulguration is much ore satisfactory than cautery, for the reason at the heat can be applied at the point dered, and perfectly controlled, and does not quire a general anaesthetic, as two (2) hyosne-morphine-cactine tablets, given two (2) ours apart, hypodermatically will be all that required.

As the above treatment, supplemented by roper diet and administration of radium tabts three (3) times a day, by mouth, or intraenous use of potassium nitrate has, we beeve, given better results than can be had by urgery alone. The following diet table, suggested by Buckley, and varied to meet the ishes of the patient, is the one followed in our ne of work:

Diet Table

Breakfast (First Day) Dinner

Baked apple — 5 ounces Tapioca soup
½ ounces rice — 3 ounces baked potatoes
½ ounces corn bread — 3 ounces stewed celery
1½ ounces butter — 3 ounces peas
½ ounce sugar — 1 ounce Graham bread
Hot water or Postum — 1½ ounces butter
— 1 fresh apple

Supper

4 ounces Rolled Oats
2 ounces white bread
1½ ounces butter
4 ounces stewed prunes
½ ounce sugar
Very weak tea.

Breakfast (Second Day) Dinner

Orange — 3 ounces macaroni
4 ounces hominy — 3 ounces string beans
2 ounces Graham toast — 3 ounces carrots
1½ ounces butter — 2 ounces bread
½ ounce sugar — 1½ ounces butter
Postum — Dates
5 ounces pea soup

Supper

4 ounces Cream of Wheat
2 ounces white bread toast
1½ ounces baked apple
2 ounces crackers
1½ ounces butter
½ ounce sugar
Very weak tea

Breakfast (Third Day) Dinner

Banana — 3 ounces baked potatoes
4 ounces Pettijohn — 3 ounces squash
1½ ounces butter — 3 ounces boiled onions
½ ounce sugar — 2 ounces bread
Hot water or postum — 1½ ounces butter
5 ounces corn syrup — Raisins

Supper

4 ounces Farina
4 ounces stewed figs
2 ounces Graham crackers
1½ ounces butter
½ ounce sugar
Very weak tea

Breakfast (Fourth Day) Dinner

Raw apple — 4 ounces baked beans
4 ounces corn meal mush — 3 ounces cauliflower
2 ounces Graham bread — 3 ounces asparagus
1½ ounces butter — 2 ounces bread
½ ounce sugar — 1½ ounces butter
Postum — Figs
5 ounces vegetable soup

Supper

4 ounces rice
4 ounces stewed prunes
2 ounces Graham crackers
1½ ounces butter
½ ounce sugar
Very weak tea

Breakfast (Fifth Day) Dinner

Orange — 4 ounces spaghetti
4 ounces cracked wheat — 3 ounces Lima beans
3 ounces corn muffins — 3 ounces boiled onions
1½ ounces butter — 2 ounces bread
½ ounce sugar — 1½ ounces butter
Hot water or Postum — Dates
5 ounces Sago soup

Supper

4 ounces Cream of Wheat
Sliced orange
2 ounces oatmeal crackers
1½ ounces butter
½ ounce sugar
Very weak tea

Breakfast (Sixth Day) Dinner

4 ounces samp
2 ounces Graham toast
1½ ounces butter
½ ounce sugar
Postum
5 ounces celery soup

4 ounces baked potatoes
3 ounces carrots
3 ounces spinach
2 ounces bread
Orange

Supper

4 ounces Wheatena
4 ounces stewed figs
2 ounces saltine biscuits
1½ ounces butter
½ ounce sugar
Very weak tea

Repeat this bill of fare on successive days.

We would suggest as near the salt-free, diet, as is compatible with the human economy, the elimination of a large part of the proteins. To increase potash, would suggest that potatoes be eaten with the skins on. Remember, at all times to treat the patient as well as local condition.

And, in conclusion, we can do no better than to quote from the New York Skin and Cancer Hospital, its directions for cancer patients:

1. Cancer is a serious disease, which should receive constant medical care from the time it is first suspected.

2. "Cancer Specialists" who advertise should be avoided.

3. Cancer is not contagious, and there is no danger of communicating the disease to others.

4. Cancer is not a disgraceful disease, and there is no reason for being ashamed of it or hiding it.

5. As soon as Cancer is suspected, whether there be a lump or sore, or other symptoms, it should be at once cared for by a competent medical man, as the earlier it is rightly handled, the more prospect there is of being cured.

6. Any condition suspected to be cancer should not be handled or squeezed, but should be kept from all irritation, as all this increases and spreads the trouble, and renders the cure more difficult.

7. If it is decided that a surgical operation is desirable and wise, this should be done very completely at the earliest possible moment; delay is dangerous.

8. The proper medical treatment of cancer should never be neglected, both at the very beginning, and also after an operation has been performed, in order to prevent recurrence.

9. It is not necessary to operate on every cancer. X-ray and radium are often valuable, and the disease can certainly be made to disappear and remain absent under careful and efficient dietetic and medical treatment alone.

10. This treatment consists in an absolutely vegetarian diet, with continuous proper medication, for a long time.

11. To get favorable results this treatmen should be kept up faithfully and strictly by th physician.

THE CARE OF TRAUMATISMS OF THE CORNEA

S. R. GIFFORD, M. D.
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MOST doctors have a healthy dislike o eye-cases and their first thought whe one comes into the office is to "pass th buck" and send the case as quickly as possibl to an oculist. Eye-cases have a way of appear ing, however, under circumstances in whic this simple course is impracticable, and i many cases it is entirely unnecessary. So thought I would spend a few minutes in dis cussing some apparently trivial troubles, i which a very little time and effort applied b the physician at once is as effective or ofte more effective than the care of the bes equipped oculist, after a time-and-money-con suming journey. Sometimes, in fact, the tim so gained eliminates severe complications wit danger to the eye.

Foreign Bodies

With foreign bodies this is especially ofte the case. The difficulty with foreign bodies i often to find them, even when there is a defi nite history of something in the eye. This i even more true when there is no history and have had patients come some distance with diagnosis of iritis who were cured in tw minutes when a previously unsuspected foreig body was discovered and removed. The cor nea should be examined carefully under a goo light and usually the point of light from a electric bulb focussed on the cornea with small hand lens is best for this. If nothing i seen with the naked eye, examination throug a second lens will often disclose one, but th eye must be looked at in every possible po tion as a dark object cannot be seen agai the black pupil and must be caught over t lighter iris. It must be seen to move wi the movements of the eye over the iris, so th no attempt will be made to remove one of t dark spots on the iris. If nothing is seen the cornea, the lids should be everted and t folds pressed out into view. In painful ey the examination can often be carried out on after one or two drops of 2 per cent cocaine.

When the body is found, if it is on the lid, may be easily removed by a moistened cott amplicator. If it is on the cornea, thorou local anesthesia is imperative before remov

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o drops of 2 per cent cocain two minutes rt are usually efficient, or two drops of 2 cent butyn half a minute apart are equally Sometimes a jet of water from an irrigator l dislodge the offender, and this should be d first as it is simplest and safest. If it s, a small, half sharp point should be used, ull cataract knife, or a steel spud filed down a fairly blunt point. This should be steril- l in carbolic and carefully wiped off. It is portant to do as little damage to the cornea possible, especially to the central portion, l very small, deeply imbedded particles, ecially of carbon or rust, are sometimes bet- left alone till the tissue around them soft- . When a ring of blackened tissue is left und the site of a foreign body very little ort should be made to remove this, and if it eft alone, most of it will be absorbed and the ual result will be better than if it is all care- ly removed, though the irritation may per- t slightly longer. After several days it is netimes softened and comes away easily. ith some very deeply imbedded foreign dies, there is danger of pushing them into the terior chamber, and much care and ingenuity ıy be necessary to prevent this.

It is important to warn the patient that any eply imbedded foreign body is likely to ıve a scar, which if near the center, may in- fere considerably with vision even when re- oved promptly. Since many corneal ulcers gin at the site of a foreign body, this site ould be inspected carefully for the first evi- nces of infection. If there is any infiltration, e spot may be touched lightly with a fine tton point dipped in liquified trichloracetic id, or the omnipresent tincture of iodine. In ıy case, a mild collyrium such as boracic acid, grains to the ounce, should be instilled fre- ıently for several days, and the patient in- ructed to return if any irritation continues.

Abrasions

After slight injuries such as scratches with finger-nail or a weed, it may be perfectly ap- arent that there is an abrasion of the cornea. Where only the epithelium is removed, how- ver, the cornea may look perfectly clear, and is only by staining that the abrasion can be een. A drop of alkaline fluorescein solution hows it as a greenish area in the clear cornea. Mercurochrome 220 is also an efficient stain. Besides the presence of the abrasion, such taining is of great value in prognosis, since, he intensity of the stain indicates the depth of he loss of substance. This is especially valu- ble after chemical burns, where the prognosis s so uncertain. In these abrasions and burns here is usually nothing much to be done except o prevent secondary infection, and adhesions of the lids to the globe. The first is done by frequent use of a mild boracic collyium, to which one grain of atropine is often added to abolish painful ciliary spasm. If the pain is severe, one-half to one grain of cocain may also be added. Hot packs are of great value both in lessening pain and hastening the replace- ment of epithelium, which process can be beautifully watched from day to day by stain- ing with fluorescein. If adhesions occur they should be separated with a smooth probe after thorough cocainization and liquid petrolatum instilled frequently to prevent their recurrence.

In chemical burns a guarded prognosis must always be given, as some chemicals, such as formalin, produce a deep necrosis which leaves much denser scars than would be supposed from the first appearance of the lesion.

Deeper Injuries

Of the more severe deep injuries there is little time to speak. After any injury with a small body or a large one from which a particle may have broken off, it is very important to de- termine as early as possible, the presence or absence of an intra-ocular foreign body. It must be remembered that a small particle may pass through the cornea and leave almost no trace of its course, while if it passes through the conjunctiva and sclera, the wound is often impossible to find. Thus a careful examination with dilated pupil is important, when the course of the particle through the lens can often be seen by reflected light, or the foreign body seen with the ophthalmoscope. If there is injury to the lens, the patient should be warned of the probable development of cata- ract. If nothing is seen, and still congestion or reduction of vision point to a continued irrita- tion, an X-ray should always be made for the protection both of physician and patient.

In perforating wounds with a sharp instru- ment the question of the future of the eye is first to present itself. If the wound is slight, with no evidence of infection and no injury to the lens, watchful waiting may be practiced, using atropine and heat. If the wound is ex- tensive, extending into the ciliary body, with iris tissue present in the wound, the prognosis becomes a grave one, and the question of its removal to avoid the chance of sympathetic ophthalmia, must be considered seriously.

If the eye has no projection, that is, ability to tell the direction from which light is thrown onto it, there can be no hesitation to remove it, as it may almost surely be said that it can never regain useful function, even though bare per- ception of light is retained. If projection is retained, however, future iridectomy or discis- sions of the lens may restore useful sight, and if there is no evidence of infection, even a badly injured eye may sometimes be saved, though the prognosis would be anything but good.

Corneal Ulcers

Of corneal ulcers, I would only say that after any of these injuries they should be constantly watched for, and that if they occur, energetic treatment should be begun at the earliest possible moment. The corneal ulcer causes the oculist more grief, perhaps, than any other one thing, and a patient should be instructed at the outset that it is serious and deserving of all possible care.

RENAL FUNCTION IN PROSTATIC HYPERTROPHY

RAYMOND L. LATCHEM, M. D., M. S. (Urology)
Sioux City, Iowa.

PROPER estimation of the true value of renal function in any given case of prostatic hypertrophy is extremely important from the several viewpoints of preparatory treatment, prognosis, and selection of the type and time of operation. Renal function may be estimated at any time by consideration of certain clinical facts such as presence or absence of nausea, loss of appetite, loss of weight, headaches, mental disturbances, etc. The presence or absence of any one or a combination of these clinical facts are commonly recognized as indicating depressed or normal kidney function and, in experienced hands, may suffice in themselves as a basis of judgment, or again may be used as a standard of comparison with the results obtained by the laboratory tests.

The laboratory tests of renal function are of two types—those of excretion and those of retention. Of the many excretory tests the phenolsulphonphthalein or "phthalein test" has received the greatest usage because of its ease of determination and its fairly accurate information when properly interpreted. The retention tests consist mainly of estimation of blood urea nitrogen and blood creatinine and yield the most accurate and reliable information obtainable from laboratory tests.

Blood urea and urea nitrogen readings are important as a check on the excretion tests, as the only available test in certain cases where accurate excretory tests can not be made, and in picking up the occasional cases where the tests of excretion and the patient's condition fail to indicate the true extent of kidney failure. It is generally considered that a blood urea nitrogen of 20 mg. to 100 cc. of blood (blood urea 40 mg.) is still within normal limits. As the readings rise above that point, they are considered as indicating a definite evidence of retention until, as they approach 50 mg. (blood urea 100 mg.), they are considered as indicating a very serious condition. In terms of phthalein excretion the prostatic may be considered as i good condition for surgical interference whe a return of 40 per cent or better is obtained i the usual time of two hours and fiftee minutes. The preparatory treatment will var in type or not be necessary according to th other findings in the case. When the phthalei excretion is below 40 per cent, preparator treatment is definitely indicated and must b directed at the cause of the lowered functio Except in certain uncommon exceptions, th results of these types of tests bear a certai definite relationship to each other and to th condition of kidneys and so offer exact labor tory tests to check up the vagaries of clinic judgment. However, it must not be forgotte that the proper association and weighing c clinical facts together with the results of la oratory tests are more apt to be attended wit happier results than those obtained by reliand on any single method.

Chief factors associated with prostatic hy pertrophy that cause depression of renal fun tion are acute and chronic pyelonephriti residual urine, diverticula, and bladder stone In addition, true nephritis and circulatory ren insufficiency need always be considered. Din inished renal function may be an actual irrem diable condition, as in the nephritic kidney c old pyelonephritic kidney with or with pyon phrosis, or may be only depressed or emba rassed function from the back pressure effe of residual urine, from mild pyelonephritis th is still capable of improvement with free drai age.

Pyelonephritis is the most important sing consideration in the question of the obstruc ing prostate. It seems that it might be we for all concerned, and especially the patient, the prostatic was considered not from his ob structive symptoms and his difficulties c urination, but as either as actual or potenti case of pyelonephritis. Certainly, practicall all prostatics develop pyelonephritis and in th great majority of cases it and its sequelae ar the causes of death. This one fact—that pye onephritis will usually develop in cases wit obstruction to the urinary outflow—is in it self the greatest argument for early operatio It seems certain that every advanced prostati has a coincident pyelonephritis on whose be havior his future life history depends. If, fol lowing free drainage of the bladder either b catheter or suprapubic drainage, his renal func tion improves, he may go safely through opera tion and then his future years may then b measured not by relief of his symptoms but by the improvement of his kidneys. It is often sur prising how the function of the pyelonephriti kidney will improve with bladder drainage an other measures as increase of water intake

Read before the Medical Society of the Missouri Valley, St. Joseph, Mo., September 21, 1922.

the type of drainage depending on all ings in the case.

esidual urine is a potent cause of depressed il function, not only through its relation- to pyelonephritis but also apparently by ns of the so-called "back pressure" effect he kidneys. The amount of residual neces- to produce "back pressure" probably es in different cases, and is difficult to as- ain as it is hard to determine the amount enal depression which should be charged pyelonephritis. The chief concern with dual urine is the question of what may oc- when it is withdrawn. In many cases this l be accomplished without incident, the al function quickly and steadily improves he constant presence of the residual is re- ved. In others, however, withdrawal of the idual precipitates further renal disturbance l depression. This has been variously re- ed to a "negative phase," "reaction" and as te pyelonephritis, occuring either as a first ection or as an acute flare-up in the kidneys eady infected. Certainly most of these re- ions bear all the marks of an acute pyelone- itis. The exact route of the infecting or- nism is not proven but is apparently a di- t extension from the bladder to the kidney way of the ureteral content. However, it ist be conceded that the amount of back ssure exerted by the residual plays an portant part in this reaction as its severity apt to be proportional to the amount with- awn. This had long been recognized and d led to different methods of gradual lessen- of the amount of residual with the object gradually lessening the pressure on the kid- ys so as not to precipitate a marked change conditions under which the kidneys are func- ning. Of the several methods of gradual compression, the procedure suggested by n Zwalenberg and further described by ulds and Braasch has proved the simplest d most reliable. By employing this method every case when a distended bladder is agnosed or suspected, the previous high mor- lity rate which accompanied the attempt at eparation of this type of cases for prostatec- my has been very materially lowered.

Preparation of prostatics for operation cen- rs chiefly around improvement of renal func- n or insuring against a decline of what func- n is present. It has been well recognized at some type of pre-operative treatment is cessary and absolutely indicated in a certain mber of cases. After the discovery of the eat improvement in general condition and e comparative safety with which later opera- on was undertaken with which preliminary prapubic drainage was attended, the so- lled primary operation for prostatectomy fell into more or less disrepute and the principle of improving renal function by bladder drainage was established. Soon some surgeons were preparing all their cases by preliminary suprapubic drainage, apparently advising that all cases be treated alike. That suprapubic drainage is not necessary in every case is shown by the results of the Mayo Clinic where less than 20 per cent are drained suprapubically as the means of preparation for prostatectomy. Catheter drainage of the bladder requires more judgment and skill in handling the case but will be successful in 90 per cent of the cases when properly used. Approximately 10 per cent of the cases where catheter drainage is undertaken will later have to be drained suprapubically because of intolerance of the catheter, failure to improve, development of pyelonephritis or epididymitis. Also preparation by catheter will usually fail in presence of severe cystitis or bladder stones complicated further by cystitis, regardless of degree of renal function present. Successful preparation by catheter permits of a primary prostatectomy which presents several advantages to the surgeon. In addition to bladder drainage the increasing or forcing the amount of fluids taken by the patient, free elimination from the bowels and administration of a mild urinary antiseptic such as hexamethylene are important measures in improving renal function.

Only a small percentage of cases consisting chiefly of acutely distended bladders, with failure to pass a urethral catheter, and acute uraemia demand emergency suprapubic drainage. Acute uraemia may result from marked sudden interference with renal function by the distended bladder in acute retention; from the lowered function, with added effects from toxic absorption of acute pyelonephritis, from a combination of the above two, from an acute condition super-imposed on an old chronic pyeolonephritis, or, as the closing chapter in the final breakdown of chronic pyelonephritic kidneys. Treatment will vary with regard to the above types of cases presenting uraemia. When it seems that the uraemia is the expression of the final breakdown or that the severity of the condition denies any hope of recovery, useless surgery may be avoided by the use of the permanent catheter. In all other such cases suprapubic drainage offers the best hope to a serious condition and prostatectomy is best deferred for several weeks regardless of early symptomatic improvement of the patient. Chronic uraemia presents an equally difficult problem but usually allows more time for thorough investigation and deliberate action. The problem in these cases is to decide whether the kidney function can be improved sufficiently to allow a reasonably safe opera-

tion or not. It is these cases that the importance of blood chemistry is fully realized.

Conclusions

1. Preparation of prostatic obstruction cases centers chiefly around improvement and conservation of the renal function.

2. Bladder drainage, either by urethral catheter or suprapubic drainage tube is the most important measure in such preparation.

3. Preparation by urethral catheter is possible and desirable in the majority of cases.

4. Early operation is desirable that pyolenephritis and its sequalae may be avoided.

References

1. Von Zwalenburg, C. J. A. M. A., 1920, LXXV, 1711-1712.
2. Braasch, W. F. Minnesota Medicine, June, 1922.
3. Foulds, G. S. Journal of Urology, Vol. V, No. 5, 1921.
4. Hunt, V. C. (1) Minnesota Medicine, August, 1921; (2) Minnesota Medicine, September, 1921.

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PROTEINS—NOTES

Proteins are combinations of smaller units known as amino-acids. The human requires a certain amount of specific amino-acids for proper nourishment. The various proteins possess different values according to their power to supply the food elements essential to the body. There are eighteen amino-acids. They are combined in different proportions to form the enormous variety of proteins, somewhat as the letters of the alphabet are combined to form words. The specific character of a protein is due to the relative proportions in which the amino-acids are present. In the course of digestion the proteins are decomposed into amino-acids, are absorbed in that form and are carried by the blood to the various tissues which select what of them they need for the building and repair. The residue is then carried to the liver, decomposed there, and the waste excreted. The value of this knowledge makes it possible to find out by experimentation which protein provides the best combination of amino-acids and how to supplement one protein which is poor by another which has excess.—Ellis & Macleod's book, "Vital Factors of Foods."

THE HOSPITAL VISITOR

I've all the equipment I had at my birth;
Abnormally normal I dwell on the earth.
No part or attachment, though small it might be,
Has ever been surgically wrested from me.

So here in my corner I'm humble and dumb,
While all my companions with whom I have come
Cheer up the poor invalid, all too faint-hearted,
With tales of how they and their organs were parted.

Hez Heck says: "Laziness supplies nine-tenths of the demand for laxatives."

Correspondence

THE PHOSPHATIC INDEX

Editor Medical Herald:

Since presenting the paper, "The Phosphati Index" before the Missouri Valley Medical S ciety, which was published in your widel circulated Journal, I have received scores letters from interested men asking me for i formation regarding some omission on my par

I have tried to answer all, but from secon requests, I am sure there are some still wai ing.

May I take this opportunity to enlighte any who I may possibly have overlooked.

A ½-in. objective is the best with which view the crystals; they will appear about ¼ in. in diameter. The fairly constant appea ance of the amorphous variety (D) in the a sence of liquor, morphine or cocaine with 24 hours should be judged with grave su picion as to oncoming degeneration of the ne rones. (The author has observed 12 cases, died insane in from 7 to 18 months).

E crystals always indicate great nerve c irritation; they are commonly found in w men. If the precipitate is plus, and the ca is acute, the best results will come from t bromides in combination with elix. val. amm Where these crystals are observed in conne tion with a low index, fl. ex. valerian can added to the nerve cell nutritive agent give I always use the fomula of phosphorus ori nated by me, the dose of which is 30 drops.

The alkaline solution: ammo, chlor., ma sulphate, water of ammo. (10%) of each o ounce, water 8 ounces can be made by a pharmacist; it is very cheap; allow it to sta a couple of days before using.

Thanking the men most kindly who ha taken sufficient interest to write me, and pecially those that have tried this method, porting remarkable results therefrom,

I am yours truly,
J. HENRY DOWD, M. D.

437 Franklin St., Buffalo, N. Y.

HOW ABOUT NOAH?

It was a hot day on the border. The re ment had been ordered to move, and for m than an hour a soldier had tried to get his m into a box car. The chaplain came along a began to laugh at the soldier's discomfitu The poor soldier turned as he wiped his p spiring brow and said:

"Chaplain, how did Noah ever get two these things into the ark?"

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

PHYSICAL MEASURES IN TUBERCULOSIS

Dr. Wm. Benham Snow says, "In tuberculo- s the X-ray used in connection with high fre- ıency thermal penetration (diathermy) is most markable in sterilizing and destroying bacria. In tubercular adenitis peritonitis and dison's disease or any condition in which the ıbercular process involves the smaller struc- ıre the effects are very prompt and in these ɔnditions its prestige is well established. In ılmonary tuberculosis likewise, when used in ɔnnection with all that is conducive to the nprovement of the physical condition of the atient, the X-ray plays an important role."

CAUTERY AND DESICCATION

We should abstain from the use of the term cauterize" in connection with surgical diathrmy. Cauterization and desiccation are very ınlike—cautery is a process the result of which s superficial carbonization; desiccation is a ɔrocess the result of which is a drying out of he superficial tissues; it does not burn except n prolonged application which is uncalled for. In electrocoagulation under prolonged appli- :ation carbonization should be prevented by :he application of hot salt solution which acts as an insulator.

PHYSIOTHERAPEUTIC APHORISMS

✣ ✣ ✣

¶ The knowledge of correlation of physical forces in practice is extremely important and necessary to success.

✣ ✣ ✣

¶ The failure of the profession to take advantage of physical therapeutic aids in practice is the chief cause of the development of cults in medicine.

✣ ✣ ✣

¶ A perfect understanding of fundamental principles leads to logical conclusions which ensures success.

✣ ✣ ✣

¶ Haphazard methods lead to failure.

✣ ✣ ✣

¶ A physician skilled in medicine and surgery may be an ivory-top in electrotherapy.

✣ ✣ ✣

¶ Not unlike drugs, electricity in medicine is an agent equally potent for good and harm.

✣ ✣ ✣

¶ If one has not the time and inclination to study the fundamental principles governing electric currents in medicine he should not attempt their use.

✣ ✣ ✣

¶ The condemnation of electric modalities comes through want of knowledge of the fundamental laws governing their activities.

STUFFED CAPSULES

The benefits derived from the use of high frequency currents, light therapy and roentgen rays in local infections are equal if not superior to oll other known methods of therapy.

✣ ✣ ✣

In cases of unresolved pneumoni, employ Dr. Diathermy and Dr. Roentgen Ray alternatively and you will call them blessed.

✣ ✣ ✣

Cervical erosions are promptly cleared up by one application of surgical diathermy—desiccation or electrocoagulation.

✣ ✣ ✣

The static machine is coming back. Why? Becaus there is no other modality electric or otherwise so potent in clearing up the products of inflammation, draining engorged tissue, increasing glandular activity accelerating repair and relieving muscular spasm, tenderness and pain.

✣ ✣ ✣

The denial of the employment of physical measures to those who suffer is sustenance to the quack. The adoption of these measures by the profession will do more than anything else toward driving isms out of the practice of medicine.

✣ ✣ ✣

Mr. Doctor, what do you do for a tuberculous kidney? "Cut it out." Oh yes, but why not give its owner a chance to save his anatomy by the use of diathermy? It takes time that's all.

✣ ✣ ✣

He who slurs physiotherapy strikes a blow at the house in which he lives.

✣ ✣ ✣

Normal systolics, high diastolics with diminished pulse pressures are common after apoplectic seizures.

Ultraviolet Light in Erythema Induration.—Five cases of erythema induratium were treated successfully by Oliver with the Kromayer lamp. The treatments were carried out by pressing the quartz glass window of the lamp firmly against the indurated areas for from one to two minutes to each area. When the lesions were small, the healthy skin outside the area was protected with paper or zinc oxid plaster. The Kromayer lamp was used on a 110 volt direct current and was run at full strength for ten minutes before applying it to the indurated areas. None of these patients had had ulcerations at any time, so that none of the cases were examples of the severest type of the disease.

Radiological Society of North America.—At the annual meeting of the society, in Detroit, December 4-8, under the presidency of Dr. Albert Soiland, Los Angeles, the following officers were elected for the ensuing year: Dr. Rollin H. Stevens, Detroit, president-elect; Dr. Russell D. Carman, Rochester, Minn., president; Drs. Lloyd Bryan, San Francisco, Douglas A. Quick, New York, and Robert H. Millwee, Dallas, Tex., vice-presidents, and Dr. Manly J. Sandborn, Appleton, Wis., secretary-treasurer.

THE DIAGNOSIS

Doctor—By a recent rule, we are obliged, in order not to alarm the patient, to indicate a disease by a number, not by its name. Your husband is suffering from No. 35. I am honor-bound by my profession to tell you nothing further.—Le Journal Amusant (Paris).

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald

and Electro-Therapist

Incorporating the

Kansas City Medical Index-Lancet

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All communications should be addressed to the Managing Editor.

Vol. XLII FEBRUARY, 1923 No. 2

The Editors' Forum

"SOMETHING ABOUT CONSTIPATION"

UNDER the above caption there appeared an article in the Western Medical Press of Denver, Colo., by Dr. H. O. Beeson of San Bernardino, Cal. The new definition of constipation is a failure of the bowels to fill. The causes enumerated are deficient gland activity, too much acidity from eating fruits with the meal, and the remedy suggested is more easily digested foods. In spite of the universality, the general prevalence of constipation, there is no mystery about its etiology, nor is there any question of its treatment. It is largely a disease of civilization. It is almost unknown among the peasants of Europe who violate both the injunctions of the Denver article—they use much acid in the way of sour kraut and indigestable food in the coarse black bread. The remedy in a nut shell may be summed up in two words—diet, exercise. The people to whom this verdict applies are indifferent, they prefer taking pills and mineral oil to walking and following a diet, calculated to dispose of constipation. Starch digestion does require an alkalin medium for digestion but this has no reference to stomach contents, with or without acid fruits, since starch is not digested in the stomach. What starch escapes digestion in the mouth is taken care of in the duodenum. The stomach has very little to do with actual digestion except with proteids. It is largely a hopper into which food is put at convenient periods—two or three times a day, and from which it is squirted out in small quantities every twenty or thirty seconds into the duodenum, where digestion proper takes place. An increase of acidity may delay the evacuation somewhat by overwhelming the duodenum, from which the peristaltic impulse which opens the pylorus arises, but will not inhibit digestion. Duodenal contents being strongly alkaline, the pylorus relaxes and permits a fresh five or ten c c of gastric contents to enter when the previous spurt has been neutralized. As to easily digested foods., a celebrated German gastro enterologist declares constipation results from too thorough digestion, that the diet must contain a certain amount of cellulose which will not digest, which resists digestion and acts as a stimulant to perstalsis to hurry along the colon contents. The prime factors in disposing of constipation are coarse food, containing much cellulose and enough physical exercise to create a perstaltic wave. J. 'M. B.

WHAT CONSTITUTES A BACK?

THE recent award to the possessor of the most perfect back in America by the osteopathic fraternity makes us wonder what constitutes the back, and whether the most perfect back has been exposed to any medical committee. The human figure is the most sublime of all creations. Its beauty, its glory consists not of any particular section, but rather the tout ensemble. The beauty of the trunk lies in series of curves of the spine, the undulating curves from the cervical vertebre to the coccyx, including the glutei region and the lateral curves as the waist line gradually swells to the trochanter of the femur. A well developed, plump back is an art study of lofty aspect, but any detached portion of it loses by its isolation.

The question as to the possessor of the most perfect back in America, it is feared, is still undecided. She will probably remain in obscurity as far as committee observation is concerned. She may be an artist model, hence less sensitive to exposure than some of her sisters, and if so, the only student who would be privileged to behold it will be the artist and that only for art's sake. J. M. B.

TREATMENT OF PARESIS

Fuchs (Munchener Med. Wochenschr.) interested in the experimental therapeutics of paresis by inducing a high temperature would suggest the use of Betatetrahydronapthylamin. This induces a temperature as high as 4.5 C. above normal. If high temperature helps paresis this drug should be helpful. If it is not useful, further costly experiments with induced high temperature need not be made.—Uro. and Cut. Rev.

NUAL BANQUET BUCHANAN CO. MEDICAL SOCIETY

HE profession of Buchanan County enjoyed an unusually pleasant evening on the occasion of the annual banquet Thursy 7 p. m., January 11th at Moila Golf Club. e attendance, the fried chicken and the aker of the evening were all evidenced to superlative degree. After an unusually ll rounded banquet Dr. Fred Ladd, toastster, presented Dr. Wm. Engelbach of St. uis, the principal speaker. The subject of address was Diagnosis and Treatment of ictless Gland Disorders, with lantern slide istrations. The subject was presented with it completeness which so characterizes Enbach's work, illustrating all the established ts together with the hypotheses which are ll in debate and awaiting more evidence to ablish clinical acceptance.

An unusual number of distinguished guests idered the occasion most notable for the anal banquet. Addresses were made by Dr. anklin H. Martin, Director General, Ameri n College of Surgeons; Dr. C. A. Hamann, eveland; Dr. Harry M. Richter, Northwest n University, Chicago; Dr. Allen Craig, Asciate Director, American College of Surons, and Dr. Malcolm T. MacEachern, Presnt-elect of the American Hospital Associan, Canada.

Kansas City was represented by Dr. Poorn.

The occasion was a specially happy one and e most elaborate banquet the Buchanan unty Society has enjoyed for some years.

BREAKING UP OF THE AMERICAN HOME

AUSE: Rushing all available sickness to the hospital. "Probably only 25% of all sickness should be hospitalized; the 75% ould be cared for in the home." Dr. Frank llings says: "I believe the maintenance of e family home is dependent on the domiiary visitation of a physician. I believe that susceptible to proof."

The hospital as it relates itself to a comunity, is a form of medical practice, deprecatg the home influence in favor of pure ience.

Hospitals, social service departments, outtient departments and dispensaries are obvisly replacing this great stabilizer to the merican home.

Industrial medicine is also another great umbling block for the continuity of the me.

The Moral Responsibility of Nursing and aring for the Sick of One's Own Family in One's Own Home, Rather Than leaving it to Some One Else or Some Organization, Society or What-Not.

If I were as rich as Methusela, and lived to be as old, I would never permit my wife to bear children outside her home and miss this hallowing, home stabilizing influence.

When my children have reached their majority and are to be joined in Holy Wedlock, this most sacred and hallowing ceremony shall be performed in my home.

And when the grim reaper shall call me and the last sad rites are to be performed, I wish my friends to administer sympathy and condolence from my residence, and not the church nor Convention Hall. If any.

H. N. J.

AMERICAN COLLEGE OF SURGEONS—SESSIONS AT ST. JOSEPH

St. Joseph was proud January 12th and 13th to entertain the Missouri section of the American College of Surgeons. The scientific meetings were held in the Crystal Room, Hotel Robidoux. The evening session to which the public was invited demanded the auditorium. The meetings were well attended. The program was well arranged and sufficiently diversified to hold the attention of the audiences. During the sessions, meetings of the various local hospital staffs were held, and arrangements made to fully qualify for acceptance in the standardization lists. Dr. Daniel Morton of St. Joseph was chairman of the sessions.

OURS FOR THE ASKING

Torry, probably the greatest, and the most orthodox Christian evangelist the church has known since Moody, says, "Prayer will heal the sick."

If this is true medicine should prove it and use it.

"Doctor, you doctors are the dearest people on earth and we love every hair of your head, as **individuals,** but, as a **class,** you are a pitiable bunch! You spend your time, money and energy organizing and maintaining medical societies for the advancement of science and the betterment of your fellow-man, and you don't know the first thing about the laws of self-preservation. The enemies of decent Medicine, in this country, are **organized** and you are **not**; you are not even well-informed."—John J. A. O'Reilly, Ill. Med. Jr.

Well, we are all coming to somewhat the same conclusion. But who is to lead us out? Where is our Moses?

Have you renewed your subscription?

Carpings of the Cynic

A PUBLIC HEARING (?)

The following editorial appeared in the Kansas City daily Journal recently:

Prizes for Health Work

A bill has been introduced in the house of representatives to pay $1,000,000 in ten annual installments to the physician or scientist who discovers an effective remedy for tuberculosis, cancer, pneumonia, paralysis, epilepsy or dementia praecox.

A board composed of the surgeons general of the army, navy and public health service is provided in the bill to pass on all cures claimed to have been discovered. Payments of rewards would be made only upon certificates from the board as to the genuineness of the cure. The author believes that by offering the prize an intensive battle will result against "the greatest enemies of the human race."

The man who discovers a remedy for any of these diseases will certainly be deserving of $1,000,000, and more. But there are scores of men who have given their lives in efforts to stamp out disease, and who, had they been successful, doubtless would have asked no financial award whatever. When a man spends his life working toward the solution of health problems that affect all humanity, material profit is usually the last thing that enters his mind.

What the bill before congress should provide, therefore, is not a bounty for the extermination of the most deadly disease, but an appropriation to assist in researches that would lead to the desired end. It should provide adequate remuneration for scientists, supplying them with necessary funds. It is futile to offer a man $1,000,000 to find a cure for tuberculosis, and then leave him unassisted in carrying out his work.

It would be far better to expend that money in the enlargement of the government's health activity or the official endowment of private research activities. And then, after the desired results had been obtained, it would be time to speak of reward.

The following reply was sent in to the same paper two days later:

What Do You Think?

I.

That first paragraph of this fine editorial presents a formidable array.

If there were more doctors in the house of representatives to see that such a measure or any measure had a fair get-a-way for the good it represents it might have a chance to function. But when it runs amuck of the lobby and of the friends of the pseudo-cults, Christian Science and chiropractic, together with the enemies of medicine and the disgruntled medical failures, it has about as much chance to benefit mankind as a snowball in hell.

There is an "effective remedy" for tuberculosis. It is early recognition, rest, nutritious diet, fresh air.

There is an "effective remedy" for cancer. It is early recognition, removal, radiation, diet stimulation, endocrine treatment.

There is an "effective remedy" for paralysis It is early recognition and prevention. Eradi cation of causes of syphilis, menengitis, infan tile paralysis, blood pressure.

There is an "effective cure" for pneumonia It is early diagnosis and treatment. Rest sera and vaccines.

There is no cure nor remedy for epilepsy. I would be a monumental humane thing if th government would spend an effective millio dollars a year in research work for the cure c epilepsy. Said million and said research to b externally beyond the touch and influence c politicians, Christian Scientists and chirc practors.

It is so disgusting it is a wonder any whit people study medicine any more.

II.

The Journal is right. Honest-to-God mec ical men are not asking rewards for their bene icent gifts to mankind, they are asking for th means and equipment and untrammelled op portunities to give their efforts and their year of experience and their lives!

And their name is legion!

III.

We may not all agree with the editorial i the expression that these said diseases fo which the offer would be made constitute "th greatest enemies of the human race." Th raison 'd etat for all these so-called incurab diseases might best be given as "ignorance and ignorance may be "the greatest enemy o the human race." Said million might therefo be best spent annually for preventive measur rather than for cures. An ounce of preventic is worth a pound of cure.

If it were possible to get a serum (turtle o tadpole) that, one shot or ten of its magic p tent drops, injected into, say, a tuberculi patient would cure, instanter, and over in th slough of despond ten more victims were b coming helplessly exposed to the disease it evident such system of cure was not functio ing effectively.

The following note accompanied the artic to the editor:

Editor Journal:

If you have the guts, print as written; if you a timid, omit the Christian Science and the Chiropra tors.

Did they print it? Certainly they did no Do they dare print the facts against a class o their subscribers? Absolutely no! That the point. Medicine is freely misrepresente and misunderstood in the prints today (thoug this editorial was not of this class, the reply w too crass) and there is no rebuke nor repl Medicine is as a sheep before her shearer Had my reply been printed would the pap

'int a reply and defense from the Christian cience publication committee? Posilutely! nstanter! H. N. J.

HOOK WORM DISEASE. (UNCINARIASIS)

The doctor who practices medicine in a hook orm district may not be the only doctor who called upon to treat uncinariasis. Cases are eing reported all over the world. Many new ountries show the spread. Brazil has recently een investigated, studied, and results reported y the Rockefeller institute. The burden of he report seems to be in the proper administration of chenopodium which, it is concluded, s a cure.

But whether we treat many cases or few we hould be able to recognize the disease since its ontrol lies in prophylaxis and educational ropaganda.

An infection of 136 average number of worms per case is very high. After the second regulation treatment with Chenopodium the cases average about six worms each, which is of no material importance.

This is a rural disease. It belts the world in a zone 66 degrees wide. This zone contains 60 per cent of the population. In our Southern rural districts practically 40 per cent of the population is infected. Infection contracted from contact with human feces on the soil and polluted mines from going barefooted. The larvae of the worm are supposed to gain entrances to the circulation through sore feet, though it is claimed they can penetrate the skin without abrasion in a few minutes; they can penetrate gloves and books. Once getting into the circulation it is supposed "they pass through heart, lungs, bronchi larynx, stomach, etc., finally reach the small intestine."

Hook worm eggs will remain infectious two years after being defecated.

The Egyptians had hook worm.

It may live in the intestines for years, feeding on the blood. It also injures the wall and causes hemorrhage.

Prophylaxis begins and ends with the construction and care of sanitary latrines. Tight shoes should be worn for protection against soil already polluted.

Symptoms: Laziness, lassitude, weakness, loss of physical and mental ability and vitality, loss of weight, anemia. Children, stunted in growth. Adults, become shiftless, incompetent and poverty stricken.

Treatment: Thymol, which, on absorption, acts like phenol, is standard treatment but seems to be giving way to chenopodium. For the proper administration of these drugs the doctor should thoroughly inform himself before electing to use either. H. N. J.

IN A HOSPITAL

By Ignatius I. Murphy, author of "Behold the Flag,"
St. Elizabeth's Hospital, Lincoln, Neb.

On beds of pain the stricken lie,
The hours passing slowly by,
While Life and Death their vigil keep
For some must die and some must weep.

Minist'ring angels come and go,
Black-robed Sisters pass to and fro,
Of calming touch and soothing word,
No gentler voices ever heard.

The busy world beyond the pane
From which to these white cots we came
Reeks little of the absent one,
The ranks are filled e'er day is done.

A moan, a groan, the Spirit's nigh
A pallor strange, the last, last sigh,
Fond hearts breaking—from anguished bed,
Perhaps to God a soul has sped.

But doctor, nurse and chaplain's prayer
A hopeful, healing message bear
And many walk the sunlit way
Of health and strength in brighter day.

Oft souls are saved in House of Pain,
For vows are made to live again
In better lives and kinder deeds
By suff'ring ones in hour of need.

Helpless, indeed, humanity,
Face to face with eternity,
Yet House of Pain, affliction's rod,
May serve for all as House of God.

WHAT MAN WANTS

A man can't live on love alone,
A man can't live on thought;
A man can't live on liberty,
No odds how dearly bought.
All these are nothing to a man—
I don't care what you say—
Unless he manages to get
Three good square meals a day.

A man can lose his pile entire
And never turn a hair;
But if the ham and eggs are cold
There's brimstone in the air.
A man can lose his hair and teeth
And friends, and still be gay
If he is fixed so he can get
Three good meals a day.

A man can wear a smiling face
Above a broken heart;
A man can grin and bear the pain
When fondest hopes depart,
The only thing that downs a man
And puts him out to stay
Is separating him for keeps
From three square meals a day.

Now, some want gold and some want fame,
And some want liberty;
But all mankind in every clime
On one great want agree,
For be they slaves or emperors,
Young lads or sages gray,
There's not a one of them but wants
Three good square meals a day.

—Washington Post.

Nose Notes

MOLES and vascular growths can easily be removed by daily application of trichtrichloracetic acid, full strength. Apply carefully with a small piece of cotton on applicator and do not touch the healthy skin. Do not cover unless to avoid danger of disturbing the scab. After a week or ten days begin to grease with vaseline until the shed falls off.

When dry scales and scabs in the nostrils are heard to remove and free to form the nostrils may be cleansed of them and put in better condition by free application of Unguentine; applied and distributed in each nostril, with the little finger, shorn of excess and overhanging nail. Be sure to reach the anterior fossae.

For a tickling itching scratchy nose, one that persists and it may seem necessary to "pull a few hairs,"—relief is obtained instantly by applying unguentine or plain vaseline, swabbed up each nostril by the little finger. Never pull the hairs nor clip them.

This writer has a doctor friend who has a nervous habit of picking and poking and digging into the anterior chamber or fossa of each nostril. He has had as many as three attacks of erysipelas of the face in one year.

Strong solutions and too much irrigation for repeated nose use are taboo.

The blowing of the nose fiercely and with great eclat, vociferously and vehemently, is also taboo. Many hay fever subjects derive comfort and honorable mention for their blasts of the bugle.

In packing the posterior nares for occasional hemorrhage it is well to remember that it is quite large comparatively; the size of the packing may be made to conform to "the same size of the terminal phalanx of the thumb of the patient." Or, preferably, gauze strips may be used, carrying the material well back with a slightly bent metal probang or applicator. If the case appears to be of the hemophiliac type adrenalin or iron may be used on the gauze.

"Day by day, in every way," The Herald is growing Better and Better!

Biographical



LEROI BECK, M. D.
St. Joseph, Mo.

THE elevation of Dr. Leroi Beck to the presidency of the Buchanan County Medical Society is a testimony to an old truth, that loyalty, energy and faithfulness to an organization is appreciated and has its reward. The doctor has been a wide-awake, active fellow of the local society for years. Last year, as chairman of the program committee his executive ability was so marked, the present honor fell upon his shoulders as a natural sequence. Dr. Beck has been in practice in St. Joseph for the past 20 years, has served as emergency surgeon to the packing houses, as city physician, as jail physician, in various committee work of the local medical society, an experience calculated to qualify a man as an all round good doctor, equal to any emergency. The present honor has been earned, and the Buchanan County Medical Society expects an unusually prosperous year under the presidency of Dr. Beck.

It is announced that Dr. Blue has been called in to aid the league of nations. Surely it cannot be a case for similia similibus curantur?—Philadelphia North American.

Current Comment

IN THY DEAR EYES

I know, my dear, the way is long and lonely,
With scarce a star in all the shadowed skies;
But love is with us, and I see heaven only
In thy dear eyes.

That love, my dear, that every burden lightens
When o'er my way the storm revengeful lies;
But all the gloom with grace and glory brightens
In thy dear eyes.

Still through a world of sighing and of sorrow,
By dark or day, not shelterless I roam;
Of thy dear eyes the light of love I borrow—
The light of home!

—Frank L. Stanton, in the Atlanta Constitution.

Dr. T. Howard Plank, president Western Electrotherapeutic Association, who has been spending his winter vacation in California, was a Kansas City visitor January 28th. A conference luncheon was held at the Bellerive, where plans for the April meeting of the association were perfected.

Mr. Maurice Levison, for a number of years manager of the Physicians' Supply Company, has resigned his position with this house, and associated himself with Mr. C. F. Mills, the Electrotherapy supply man in the Ridge Building.

Dr. John M. Bell has tendered his resignation as president of the Health Board of St. Joseph, following his disagreement with Mayor McIninch concerning some appointments which were not approved by the Health Board. It has again been demonstrated that politics and health matters will not mix.

Dr. Geo. M. Boteler, who, during several administrations, has been health officer of St. Joseph, has resigned his post to accept the office of assistant health officer at Washington, D. C. The doctor leaves the city with the good wishes of the health board, where his work has been most efficient, together with regret at the loss of his direction and faithful service. His years of service here, together with the study and attendance upon meetings of National health boards, has elevated his efficiency to a point where he is fully qualified to assume his new post. His friends in the profession and out of it wish him Godspeed, and feel confident he will fill his new position with honor to himself and the community.

Dr. D. D. Campbell, of Chicago, has arrived in St. Joseph to assume his duties as superintendent of state hospital No. 2, succeeding Dr. A. C. Vickrey, who was dismissed last May. Dr. G. V. Ard, state director of eleemosynary institutions, has been in charge of the hospital since May.

The new superintendent has been on the staff of the Illinois State Hospital at Chicago.

Members of the Western Electrotherapeutic Association, assembling in Kansas City, April 16 to 20, are invited to make their headquarters at Hotel Bellerive, Kansas City's newest and finest family hotel, located on Armour and Warwick Boulevards. A beautifully furnished room, with bath (for two people) twin beds, $5.00 per day; ten minutes' walk from the Little Theatre. Reservations should be made without delay.

SPLINTER UNDER NAIL

Recently a woman came to my house with a splinter of old porch flooring under her nail, running the full length of the nail.

Two doctors had tried to pick it out.

It was paining her considerably.

A drop of 4 per cent cocain solution was placed on the raw surface while arranging for a lysol solution, and sterilizing a knife and thumb forceps.

The finger was squeezed tightly and a semicircle of nail over the "exposed" end of the splinter was cut away to the "quick." This was not very painful, as the splinter had already separated nail from the "quick." The then exposed end of the splinter was grasped with one thumb forcep blade under the splinter—not laterally—and removed. Iodine was swabbed on and a dressing arranged that would carry alcohol which was to be frequently applied.

The charge was $2, gratefully paid.—Kansas.

VINCENT'S ANGINA

That Vincent's Angina is frequently undiagnosed is doubtless true. It's presence in the mouth is common in conjunction with decayed teeth, especially the back molars. When a tonsil is affected it is usually single and there is no fever. Where there is doubt a culture should be made. Iodine is the old standby for treatment; carbolic acid and trichloracetic acid are also good.

Why does a surgeon demand radiotherapy for his wife's fibroid?—Dr. E. H. Skinner, Roentgenologist, K. C., Mo.

—Well, that is a hard, knotty case, and there seems to be no fee for the consultation 'n'ev'rything.

Society Scintillations

CLAY COUNTY MEDICAL SOCIETY

The Clay County Medical Society met in Liberty on December 27th at 6 p. m., whereat thirty-two members and wives sat down to a sumptuous banquet, tendered by our Liberty members, at the New Liberty Inn.

The table was beautifully decorated with the features common to Christmas festivities, and it was a right merry, fraternal and congenial body of Clay County's best men and women, who sat down to dine in our last meeting of the year 1922. The secretary has long ago ran out of superlatives in describing these Clay County dinners, and is now on the lookout for newer and bigger adjectives, that may keep pace with our ever-increasing dietary possibilities.

After the banquet, the ladies were entertained in a royal manner by the local committee. The business session followed the dinner at our time-honored place of meeting—Dr. Matthews' office. Dr. E. C. Hill presiding. Election of officers: Dr. E. E. Peterson of Nashua, president; Dr. J. E. Baird, Excelsior Springs, vice-president; secretary-treasurer, Dr. J. J. Gaines, Excelsior Springs, re-elected. Delegate, Dr. E C. Hill, Smithville; alternate Dr. C. H. Suddarth, Excelsior Springs. Censor, Dr. W. J. James, Excelsior Springs, re-elected. The new officers responded in well-chosen words, to the demand for "speeches." The secretary read a financial report of the year's work. Two members were dropped from the roster for nonpayment of dues and non-affiliation.

Dr. Ralph Major, head of the department of medicine in Kansas University, delivered a stereopticon lecture on "Technique of Basal Metabolic Determinations" with many case reports showing the value of the procedure. This was one of the best and most scientific papers of the year. Space forbids detailed report, but our few absentees missed a treat. The secretary was then "ordered out" and while taking a short nap in Dr. Matthews' laboratory, was voted a handsomely engraved walking stick—"a mark of esteem," they said. "Ain't this a good world after all "

Thus the Clay County Medical Society enters its 69th year! Most cordial greetings to "the family."—J. J. Gaines, Sec'y.

BITTER SWEET

When I read olden verse whose honeyed tone
  Still bubbles sweet as fabled Hippocrene,
  Keeping the singer's passion ever green,
Embalmed ni words outlasting brass or stone
Then marvel I my secret heart was known
  To former singers, who, from earthly scene
  Of life's vicissitudes and sorrows keen
Long since departed, have forever flown.
O Singers of Parnassus, have ye found
  A shining realm of pure felicity
  Beyond this sphere, to match your sacred fire?
Were your sweet songs but echoes of the sound,
  (Heard in the rapture of your ecstacy)
  Of heaven's life, toward which we all aspire?

—Edward O. Jackson.

Physio-Therapeutic Week in Kansas City, April 16-20

WESTERN ELECTRO THERAPEUTIC ASSOCIATION

Fifth Annual Meeting at the Little Theatre, Kansas City, Mo., April 19-20, 1923

The annual meeting of the association will be in Kansas City, Thursday and Friday, April 19-20, under the presidency of Dr. T. Howard Plank, Chicago.

The following committees have been appointed for the various sections:

Committees for 1923

Arrangement—Dr. Charles Wood Fassett, Dr. L. A. Marty, Dr. Lynne B Greene.

Direct and Continuous Currents—Dr. Frederick H. Morse, Dr. Burton B. Grover, Dr. Jefferson D. Gibson.

Phototherapy—Dr. A. J. Pacini, Dr. J. W. Neptune, Dr. E. T. Molzahn.

High Frequency Currents—Dr. Omar T. Cruikshank, Dr. Frank C. Fuller, Dr. Joseph Waddington.

Roentgenology—Dr. H. H. Bowing, Dr. E. H. Skinner, Dr. Clyde O. Donaldson.

Static Currents—Dr. S. Grover Burnett, Dr. W. H. Grimes.

Hydrotherapy—Dr. Curran Pope, Dr. Charles Cahill.

Research—Dr. A. D. Willmoth, Dr. Lynne B. Greene Dr. William L. Ross.

Radium—Dr. Sanford Withers, Dr. D. T. Quigley, Dr. L. A. Marty.

Apparatus—Charles F. Mills, Maurice Levison, W. A. Rosenthal, R. S. Stoltz, E. M. Wirthlin.

The chairmen of the various committees are requested to communicate at once with their associates concerning the phases of the subject which they will take up in their respective papers. Titles of papers and reports should be sent to the secretary before March 1st.

FROM DAY TO DAY

They cost so little, but they count so much,
  The fleeting kindnesses along life's way;
  A loan to one who's known a better day;
A flower for her, not used to any such
Sweet courtesy; a sympathetic touch
  For one who failed his happiness to find,
  And for one bound in body and in mind,
A word of cheer as helpful as a crutch.

If we could only keep our visions clear
  From just the joys and sorrows of our own,
  What richer hoard we'd glean for memory's fund
So hourly, on our usual paths were some
Small deed that brought us heart and soul more near
  The poor, the maimed, the lonely and the shunned.

—Charlotte Becker, in New York Herald.

The Medical Profession is in a stronger position today, before the public, than it has ever been, and I believe it is in process of rapidly strengthening that position.—Mr. John Bowman, Chancellor, University of Pittsburgh.

A good time to pay your dues!

A PHYSIOTHERAPEUTIC WEEK IN KANSAS CITY

At the Little Theater, April 16, 17, 18, 19, 20, 1923

WESTERN SCHOOL OF ELECTROTHERAPY

Fifth Session, April 16, 17, 18, 1923

CLINICS AND DEMONSTRATIONS EVERY AFTERNOON AND NIGHT

Instructors: Dr. B. B. Grover, Dr. Frederick H. Morse, Dr. T. Howard Plank, Dr. A. J. Pacini, Dr. J. D. Gibson, Dr. H. C. Bennett, Dr. Curran Pope, Dr. Lynn B. Greene.

Classes are now being formed. Number limited to those who register in advance.

Western Electrotherapeutic Association, Fifth Annual Meeting, April 19-20

Dr. T. Howard Plank, President. Essayists: Dr. B. B. Grover, Dr. Sanford Withers, Dr. E. H. Skinner, Dr. Clyde Donaldson, Dr. Curran Pope, Dr. H. H. Bowing, Dr. A. D. Willmoth, and others. The profession cordially invited to attend.

Send for programs and registration blank. Chas. Wood Fassett, M.D., Secretary, Kansas City, Mo.

WESTERN SCHOOL OF ELECTROTHERAPY PRELIMINARY PROGRAM

Monday, April 16, 1923—Morning Session

An entirely new method of teaching will be inaugurated at this session.

The Fundamental Laws governing Electric Currents. Electro-Physiology. Forms of Energy and its transformation. Classification of Electricity from an Electrotherapeutic standpoint. The different forms of Electric Currents and their Uses in Medicine. Electrolysis. Ionization. Ionic Medication, its importance and follies.

Monday—Afternoon Session

Indications for the use of **Direct** and Sinusoidal Currents. Clinical Demonstration of **Direct** and Surging Waves in Paralysis, Intestinal Stasis, etc. Technic of Constant and Sinusoidal Currents in Gynecology. Ionization in Infections. The entire session will be devoted to demonstrations on actual patients insofar as material is available.

Tuesday—Morning Session

The Fundamental Principles of High Frequency Currents. Types of Machines and their Function in Therapeutics; When, Where and How to employ them. Classified Physiology. Autocondensation Physiology and Therapy. Medical Diathermy; How employed to secure best results. The Advantages and Disadvantages of Surgical Diathermy. Desiccation and Electrocoagulation, When and Where indicated. Blood Pressure, etiology and physiology. Blood Pressure Reading. Sphygmomanometers, their importance in practice. Hypertension. Hypotension. Hyperpiesia. Blood Pressure Interpretation and its Importance to all Physicians.

To any physician who does or does not employ physical measures in his practice, the information presented at this session is worth many times the fee charged for the entire course.

Afternoon Session

Technical Demonstration of High Frequency Currents in Cardiovascular Diseases. Medical Diathermy, indications and contraindications. Importance of Electrodes General Technic in adenitis, amennorhea, arthritis, bronchitis, pleurisy, pneumonia, bursitis cancer, diseases of the liver, fractures, goiter, diseases of the eye, ear, nose and throat, kidney dysfunction, lumbago, muscular atrophy, neuralgia, neuritis, infantile paralysis, etc.

Wednesday—Morning Session

Practical Roentgenotherapy. Technical demonstration in alopecia, eczema, favus, fibroids, goiter, tuberculosis and Deep Therapy in Cancer.

Afternoon Session

Clinical Demonstrations. Actinotherapy, When, Where and How employed. Dermatological Clinic. High Frequency Surgery. Desiccation in acne, angiomato, corneal ulcer, diseased eyelids, hemorrhoids, diseased tonsils, benign growth, etc. Electrocoagulation in malignancy, its advantages and disadvantages; its technic of application. The electro scalpel.

Evening Session

Photo and Chromo Therapy. Special demonstration of apparatus and technic as desired by the class.

Thursday—All Day

Program of The Western Electrotherapeutic Association.

Thursday—Evening Session

This session will be devoted to special papers requiring the use of lantern slides and moving pictures. Clinical demonstrations of the methods suggested in the papers presented during the day.

Friday—All Day

Association program.

All registrants of the school are urged to attend all sessions of the association and take part in the discussions.

Write for Annual Announcement containing full information and particulars.

Address Dr. Chas. Wood Fassett, Secretary, 115 East 31st street, Kansas City, Mo.

One hour of actual practice properly directed is worth many months of book study.

Learn the details of technic under competent instructors.

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

HIGH FREQUENCY PRACTICE FOR PRACTITIONERS AND STUDENTS BY BURTON BAKER GROVER, M. D.

Author of Handbook of Electrotherapy; ex-president of the Western Electrotherapeutic Association, 1919-1920; Fellow of the American Electrotherapeutic Association; the American Medical Association; Medical Society of the Missouri Valley and the Colorado Medical Society. Published by The Electron Press, 1922, Kansas City, Mo., U. S. A. Price, $4 00.

To the users of electricity the reading of Dr. Grover's new book on High Frequency Currents is like meeting an old friend. One has so much in common to talk about.

The chapter arrangement is splendid.

Chapter I is a clear, concise enunciation of electricity up to the present moment and should be read by everyone interested in the subject and certainly by everyone who uses the currents.

Chapter II gives a very vivid description of the various high frequency currents although one might wish that he had dwelt more upon the non-vacuum and less upon the vacuum tubes which are being driven into the discard. The student in electricity needs to give more attention to the spark gap.

Chapter III on medical diathermy has received a very careful analysis and will require a careful reading while in Chapter IV surgical diathermy scarcely receives the attention it demands in view of its present day usage. Too much cannot be said of the possibilities of this particular field of high frequency currents.

Chapter VI on pain, while not high frequency, will bear very careful study and the more care given to it the more one will be repaid for his efforts. The same may be said of Chapter VII to which I would add—it is too conservative.

Chapters V and VIII I will leave for those more competent to judge, but I feel sure they are in keeping with the remainder of the book. Of the entire book, I am glad to say that no one using high frequency currents should be without a copy for ready reference.

T. HOWARD PLANK.

The Elements of Scientific Psychology—By Knight Dunlap, Professor of Experimental Psychology in the Johns Hopkins University. Author of Mysticism, Freudianism and Scientific Psychology, Personal Beauty and Racial Betterment. Published by C. V. Mosby Co., 508 N. Grand Ave., St. Louis, Mo.; price, $3.50.

This book, illustrated, 368 pages, nicely bound and in good type, is an introduction of the student to the modern science of psychology, claiming a definite departure from traditional formulae and conceptions wherein these "formulae and conceptions no longer represent the facts with which psychology has to deal". The conscious response of the organism is the psychology of today and thus it is the modern form of psychoolgy which can contribute effectively. There is a new line of thought in getting at this subject; a manner different in prying the student's thought building material loose for his prehensile grasp. It is not a student's pastime book, but a book requiring careful thought in its reading that the "Elements" of its teachings may be fixed in the mind of the reader early that he may be able to digest and assimilate the later chapters:—"Bodily Mechanism; Instinct and Habit; Development of Perception; Space Perception; The Thinking Process and Chapter 16; The Empirical ME". Read it understandingly and learn who "ME" is.

S. G. B.

Clinical Medicine—Tuesday Clinics at the Johns Hopkins Hospital, by Lewellys F. Barker, M. D., L. L. D., Professor of Medicine, Emeritus, Johns Hopkins University; Visiting Physician to the Johns Hopkins Hospital, Baltimore, Md., Octavo of 617 pages illustrated. Philadelphia and London, W. B. Saunders Co., 1922. Cloth, $7.00, net.

This is the first volume from the clinics held by Dr. Barker every Tuesday, and is the last word in the modern and up-to-date methods of Clinical Instruction in diagnosis. The style of the text is very entertaining and most intimate. In the first chapter Dr. Barker gives a brief discussion of the logic and procedure of Modern Clinical Diagnosis. Some of the cases reposted for diagnosis and treatment in this volume are Carcinoma of Left Bronchitis, Acute Rheumatic Fever and some of its complications, Post-operative Pneumonia, Space-occupying Masses in the Mediastinum, three cases of Luetic Aortitis, Stoke's Adams' Syndrome and Paget's Disease, Hodgin's Disease, Hemolytic Jaundice, Chronic Starvation, Duodenal Ulcer, Carcinoma of the Pancreas, Chronic Nephritis, The Pregnancy Kidney, Torticollis, Myositis, A Psychoneurotic, Encephalitis, Thalamic Syndroms, Meningomyelitis, Hysteria in an Imbecile, Neurofibromata, Obesity, Gout, Fatal Air-embolism, Acromegaly.

H. N. J.

Diseases of Women—By Harry Sturgeon Crossen, M. D., fifth edition revised and enlarged, with 934 engravings, including one color plate. St. Louis, Mo., C. V. Mosby Company, 1922. Price, $7.00. This standard text book has been constantly growing in professional popularity and is now recognized as one of the outstanding authorities on the subject.

The new edition has afforded the author an opportunity to thoroughly revise and bring up to date the advances in X-ray therapy and radium in their relation to malignant diseases and fibroids of the uterus; to distinguish between physiological and pathological changes in the endometrium and the pathology of the subinvolution of the uterus. Among other new features a beautiful set of photo-micrographs elucidate the microscope anatomy and pathology of gynecology. These are the work of Dr. Otto H. Schwarz, who has been devoting several years to their selection and development.

Dr. Hugo Ehrenfest contributes the chapter on endocrinology. Altogether the fifth edition of Crossen is a monument to the gynecological specialist in every department. The work should find a place in every doctor's library.

GEO. CLARK MOSHER.

"ENDOCRINE AND OTHER ORGANOTHERAPEUTIC PREPARATIONS"

is the title of a booklet just issued by Armour & Company. This pamphlet contains articles upon the products that the title covers. A copy of it will be mailed to any physician or pharmacist who asks for it.

NOTE—The Medical Herald's Kansas City office will supply any book reviewed in this department at publisher's price, prepaid. We can also supply any book by any publisher in the world. If an order for two books be sent at any one time, the purchaser will be entitled to a six months' subscription to the Herald.

Have you renewed your subscription?

Medical Melange

A FAMOUS PICTURE FREE

A beautiful duo-tone print, 10x12 inches, on heavy sepia tint paper, of the famous painting by the celebrated French artist, Geoffroy, of a mother giving medicine to her sick boy, can be had by any physician desirous of obtaining this work of art for his office, waiting room or home, upon request, from the Mellier Drug Company, St. Louis, proprietors of the Tongaline Preparations, which have been extensively prescribed for forty yeors, and samples for clinical test will be sent to any physician.

THE PALATABLE LIQUID QUININE PREPARATION

"A Child Will Take It and Lick the Spoon." How often you are called upon to prescribe quinine, and how difficult it is to give it satisfactorily to infants and small children, who detest its intense bitterness. Pills, tablets and capsules, ordinarily employed to mask the taste, cannot be given to these little patients. Many adults also find difficulty in taking them. Furthermore, the absorption of the drug is more or less retarded when it is given in these forms. Experienced physicians know instances, especially in low fevers, where quinine pills, tablets, and even capsules have been passed by the patient unchanged. By prescribing Coco-Quinine all these difficulties are overcome. Each average teaspoonful, ninety-six minims, contains two grains of true, unchanged crystals of quinine sulphate suspended in a bland, chocolate-flavored, syrupy medium that masks the bitterness but does not retard absorption. Infants and small children take Coco-Quinine cheerfully. In this form the dose of quinine sulphate may be large, yet so palatable that, as one physician said, "A child will take it and lick the spoon." Coco-Quinine will not disappoint when prompt, full quinine effects are desired. Your prescription pharmacist carries Coco-Quinine. It is in the stock of practically every pharmacy in the United States. Supplied in pint and gallon packages. Write us for a sample and further information.

VACCINE THERAPY

Patients vary in their response to the antigenic stimulation supplied by bacterial vaccines; due allowance must be made for such variation when employing bacterial vaccines.

But the leading laboratories are exerting themselves to reduce the variations in the quality of bacterial vaccines to a minimum. At one time this seemed to be an easy matter, but with the application of more rigid tests it was found that bacteria could not be tagged by name; one culture might be actively antigenic, and another almost inert—both of the same organism, but from different strains.

The bacteriologist has found a more trustworthy method of standardizing vaccines than by count—though counting has not been discarded. He can now tell whether a vaccine is really antigenic or not—whether antibodies are developed in the blood in response to the injection of the vaccine.

New literature on some of the vaccines in most common use is offered by Parke, Davis & Co, whose announcement appears elsewhere in this issue.

The Management of an Infant's Diet

Constipation

Infants that have a fat intolerance as a result of being fed upon mixtures containing a high percentage of cow's milk fat may develop a condition of constipation of a most pronounced type. This appears, at first, to be most difficult to correct; yet a very simple adjustment of the diet will bring prompt relief. The proper procedure is to remove all of the cream from the milk to be used in preparing the diet and add an easily assimilable carbohydrate. This carbohydrate element should be free from starch and one that has a high point of assimilation, for it is important that a relatively high percentage be used in order to compensate for the heat and energy lost by removing the fat.

Mellin's Food

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Doctor, are you planning to go to California? See adv. page 62

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He is not great who scorns life's little things,
The humble tastes which make the common day
Brighter, small courtesies along the way,
A kindly smile, a cheery word that springs
Up from the heart, and with its coming brings
Something of happiness, as might a ray
Of sunlight shining on a storm tossed bay,
Or the faint echo of a voice that sings.

He is not great who scorns the little things,
However large the tasks which he may do,
If to simplicity he be untrue,
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—Elizabeth Scollard, in the New York Herald.

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NAVY ADOPTS NEOARSPHENAMINE

The following letter of Rear Admiral E. R. Stitt, Medical Corps, United States Navy, was approved on August 17, 1922, by the Bureau of Medicine and Surgery, in charge of Rear Admiral W. C. Braisted, Washington, D. C., and published for the information of the medical officers of the United States Naval Service, in the United States Naval Medical Bulletin, October, 1922:

July 7, 1920.

To the Bureau of Medicine and Surgery:

"Subject: Recommendation that neoarsphenamine be substituted for arsphenamine in connection with use on board ships and at certain stations of the navy.

"1. I would recommend that the use of arsphenamine be discontinued on board ships of the navy and in its place to substitute neoarsphenamine. This same recommendation would apply to stations and smaller hospitals.

"2. In the larger hospitals where facilities for the administration of arsphenamine are satisfactory, the choice between arsphenamine and neoarsphenamine should be left to the discretion of the commanding officer.

"3. This recommendation is made for the following reasons:

(a) In discussing fully this matter with the director of the hygienic laboratory he is of the opinion that most of the accidents attending the use of arsphenamine have been connected with errors in technic. In view of the simplicity of technic when using neoarsphenamine many untoward results would be eliminated.

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—*American Medicine, September, 1922.*

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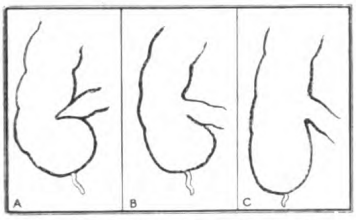
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An Independent Monthly Magazine

Vol. XLII MARCH, 1923 No. 3

Original Contributions
(EXCLUSIVELY FOR THE MEDICAL HERALD)

MYOCLONIC FORM OF EPIDEMIC ENCEPHALITIS
(With Special Reference to Abdominal Myoclonus)*

By LLOYD JAMES THOMPSON, M. D.
St. Joseph, Mo.
and MARY E. MORSE M. D.
Boston, Mass.

WITHIN a period of two weeks in March and April, 1922, nine cases of epidemic encephalitis were admitted to this hospital. In two instances there was a sudden and unexpected exodus latalis, and later in two more there was also a fatal termination. In view of the fact that all four of these patients had in common one striking sympton which was not shared by the others;—namely, disturbance of respiration due to shock-like contractions of the abdominal muscles, it was thought that this phenomenon should be recorded as a symptom of prognostic value, and investigated pathologically. In these four cases not only were the abdominal muscles involved, but in other trunk muscles and in the muscles of the extremities there were short, rapid, arrhythmical contractions of single muscles or muscle bundles, but not of syngeric groups of muscles.

It is also of interest to note that in eight fatal cases out of a total of forty-nine cases of epidemic encephalitis, five showed this phenomenon of the abdominal muscles, while only one recovered case showed it to any extent at all.

The four fatal cases mentioned above and one other similar case are reported below with necropsy findings in two of them.

Case I, (G. E. T.), a carpenter, age forty-two, was admitted March 23, 1922, because he had become delirious and had great difficulty in breathing due to contractions of the abdominal muscles. On March 10th, the patient came home from work complaining of a burning sensation in the right thigh. March 11th there was intense pain in the left shoulder and he could not go to work. The following day the pain had extended into the neck, and there was stiffness of the neck. The pain was almost constant and was lancinating in character. This continued and a few days later an intense headache developed.

March 20th the pain involved both arms and the headache became worse. At times during the day patient seemed confused. The following day he complained for the first time of blurring of vision and double vision. He also developed difficulty in breathing and his wife thought he had hiccough. March 22nd he became restless and at times confused. He thought he was back at work and apparently had an occupational delirium.. These symptoms increased and the following day the patient was sent to the hospital.

Past History: Two years previously the patient had had a head trauma and was unconscious several days, but apparently made a good recovery. In April, 1921, he had an otitis media and there was a discharge from the ears for several months, but he had had no ear trouble recently. In August, 1921, the patient had what was diagnosed rheumatic fever and was in bed three weeks. However, for four or five months prior to the onset of the present illness he had been working steadily and efficiently and had had no complaints.

Neurological: The most striking feature of the case was the shock-like contractions of the abdominal muscles, producing a disturbance of respiration similar to ordinary hiccoughs. The abdominal wall was pulled upward and inward; the thorax was contracted, probably because of spasm of the diaphragm and intercostal muscles, and at the end, if the contractions were strong enough, the glottis was closed. The recti were the principal participants in the spasm, but the obliques, the serrati, and possibly the intercostals were in-

*From the Medical and Pathological Services of the Boston Psychopathic Hospital.
Read before the Medical Society of the Missouri Valley, St. Joseph, Mo., September 21, 1922.

volved. During the stronger contractions the thighs would be flexed. At times speech would be stopped while at other times it would be made irregular and explosive by the contractions. The contractions occurred at rather irregular intervals, but there were usually about thirty-five to forty per minute. They occurred during each respiratory act.

The second feature was the rapid explosive contractions of the muscles of the extremities. These contractions were not limited to any one muscle, but synergic groups of muscles were not involved and actual locomotion was slight. Fibrillary twitching in the involved muscles was noted at times. In both lower and upper extremities there was some tendency to pronation. Co-ordination was interfered with and the patient had great difficulty in eating and drinking because of these movements. In the finger to nose test the arm would jerk downward at certain intervals. In spite of these movements adiodokokinetic movements were well done and past-pointing was fairly accurate. The patient was able to control the movements for short periods of time, and they diminished somewhat during sleep, but never entirely disappeared. These movements were synchronous with those of the abdominal wall.

Other neurological findings were as follows: Vision was somewhat impaired in both eyes. The patient could not read a newspaper, because the print blurred when looking with one eye and appeared double when both eyes were used. The pupils were dilated, irregular, and unequal—the left being larger than the right. They reacted sluggishly and through a limited arc to both light and accommodation. Ophthalmoscopic examination was negative except for a slight fullness of the veins. There was definite ptosis of both lids. Horizontal nystagmus was noted when eyes were turned to either side, but to the left it was not sustained. There was weakness of the superior recti as patient was unable to raise the eyes above the horizontal plane. In attempting to do so there was a vertical nystagmus. There was lack of convergence for close objects and the chief difficulty seemed to be with the left eye.

Hearing was slightly impaired in both ears but more so in the left. For both ears bone conduction was better than air conduction. There was no further evidence of cranial nerve involvement such as facial weakness, difficulty in swallowing, etc.

All forms of cutaneous sensation were apparently intact, although patient's condition made the examination unsatisfactory. The patient complained of pain and tingling throughout the arms. There was no paralysis, weakness, or atrophy of the muscles of the extremities. Grips were equal—the reading being forty on the dynamometer. Superficial reflexes were normal. The right biceps reflex was more active than the left. Knee jerks were sluggish, but equal. The left ankle jerk was more easily obtained than the right. No tendency to ankle clonus was found. The plantar reflex on the right was normal while on the left it was variable. There was no Kernig's sign and no stiffness of the neck.

Physical Examination: There was a marked conjunctivitis in both eyes. The teeth were in poor condition; the tongue was coated and the pharynx was injected. No mastoid tenderness was evident. The temperature ranged from 100 to 103 degrees and the pulse rate was 95 to 120. Otherwise the general physical condition was essentially negative.

Consultations: Ophthalmologist's report revealed nothing that is not mentioned above. The consulting otologist reported chronic suppurative otitis media in both ears, but found no evidence of extension of the process.

Laboratory: Cerebrospinal fluid showed a slight increase in albumen, five small Lymphocytes and one polymorphonuclear cell. The colloidal gold and Ross-Jones tests were negative. Quantitative sugar determination showed 87 mgm. per 100cc. The blood and cerebrospinal fluid Wassermann reactions were negative. Urine analysis was also negative. The white blood count ranged from eight to fourteen thousand. An X-ray of the head was normal.

Mental Status: There was a peculiar mixture of lethargy and delirium. The patient said he felt drowsy, but was unable to sleep. He was disoriented for time and occasionally for place. There was a tendency to fabrication of memory. When sufficiently aroused he answered questions relevantly, but in the midst of his conversation he would drop off into a lethargic state and speech would become unintelligible.

There were no bizarre trends of thought and no affect disturbances except that patient was very optimistic. He admitted seeing visions but denied hearing voices. He was a carpenter by trade and at night would search his room for his tools; try to fix the windows and doors and would think that he was having fights with other carpenters.

Clinical Course: During the twelve days residence in the hospital, the general picture remained much the same but there were daily changes in the neurological findings. The condition of the pupils varied from time to time; the deep reflexes varied; nystagmus disappeared and reappeared, etc. The contractions of the muscles of the limbs and of the abdomen were more or less constant.

At six a. m. of the thirteenth day in the hospital, the patient died very suddenly. He had

been seen a few minutes previously by the nurse who noted no change. He had spoken to the nurse and said that he felt comfortable. Evidently the immediate cause of death was respiratory failure.

Case II, (A. H.), a factory worker, aged 31, was admitted April 5, 1922, because of involuntary movements, pains in arms and irregular breathing. For two months previously he had complained of a general weakness, but continued to work. On March 26, eleven days before admission, he said that his arms ached and the following day there was a sharp pain in both arms. The pain grew steadily worse, but no other symptoms appeared until April 1st. He then became confused and thought he was at work and that some one was trying to get his job. At the same time awkward purposeless movements of the extremities were noted, but there was no disturbance of respiration at this time. He became more and more confused, and a few days later failed to recognize his family; thought people were after him and chased his family from the home; so it became necessary to bring him to the hospital. Just before admission it was noted for the first time that his respiration was irregular. No other symptoms of importance such as double vision or difficulty in swallowing had been noted.

Past History: The patient had pleurisy seven years ago following an injury to his chest. eH had influenza in 1918, but made a good recovery. No other serious illnesses or injuries.

Neurological Examination: On admission he was restless, muttered to himself and constantly picked at the bed clothes. The shock-like contractions of the abdominal wall immediately attracted attention. The description of them would be practically the same as in Case I. The muscles in the upper quadrants were the ones mostly involved. The contractions were irregular in force and rhythm, but averaged about 25 to 30 per minute. At times only a small portion of a muscle on one side would contract while at other times the entire abdominal wall was convulsed and even the thighs were flexed.

The sharp, arrhythmical contractions of the muscles of the extremities were more prominent in the right arm. These contractions also varied considerably in force and at times there would be only fibrillary twitching. In this case as in the others, there was a slight tendency to pronation of the extremities when the stronger contractions occurred. These movements of the muscles of the extremities were synchronous with the abdominal contractions.

Other neurological findings were as follows: Patient said in a lucid moment that he had seen double several times since becoming ill. Vision and visual fields could not be tested. Pupils were equal and regular. Reaction to light was slow and limited while reaction to accommodation was good. Ophthalmoscopic examination was unsatisfactory. There was double ptosis—more marked on the right. Definite evidence of paralysis of extra-ocular muscles could not be established. Lateral nystagmus was noted and the eyes oscillated or danced for a second or two when the gaze was shifted. Other cranial nerves were apparently intact. There was no paralysis, weakness, or atrophy of muscles of the extremities. Gait and station were not tested. The patient would not co-operate for co-ordination tests, past-pointing, etc.

Upper abdominal reflexes were lively and equal, but the lower abdominal and cremasteric reflexes were not obtained. There was a definite Babinski on the right side while the left planter reflex was normal. The right knee jerk was not obtained and the left was very modest. Deep reflexes of the arms were normal.

Cutaneous sensory examination was very incomplete, but so far as patient co-operated nothing abnormal was found. Of course, there was the subjective complaint of sharp pain through both arms.

Physical Examination: In the general physical status the most prominent feature was a swelling in the region of the left parotid gland so that th epatient looked as if he had parotitis. After a few days a similar swelling appeared on the right side. This was limited to the area of the parotid gland and seemed to be due to a swelling of this gland. There was considerable tenderness over these areas and the patient complained of pain when the jaws were opened. The teeth were in poor condition and the pharynx was injected.

There were many sibilant rales thoughout both lungs and some fine moist rales at both bases posteriorly. Peripheral arteries were thickened. Blood pressure was 152/84.

The temperature ranged from 100 to 104, reaching the latter point on the last day. Pulse rate was 70 to 130. Respiratory rate 28 to 50.

Laboratory: Urine analysis negative. W. B. C. went from 15,200 to 23,200. Differential was normal. Cerebrospinal fluid showed increased globulin and albumin and secen small lymphocytes. Colloidal gold test was negative, and the Wassermann tests on blood and spinal fluid were negative.

Mental Examination: There was a definite occupation delirium. The patient slept very little and was restless,—picking at the bed clothes, attempting to get out of bed, etc. He was disoriented for time and place. He muttered to himself constantly, asking fof tools, giving orders about work, sending his wife on errands, etc.

Clinical Course: The patient grew more and more restless and confused. The abdominal spasms became stronger and the contractions of the limbs more marked. He was given convalescent serum intraspinally, but with no apparent results.

On the seventh day in the hospital, the restlessness subsided and he lapsed into coma The breathing became rapid, shallow, and very irregular. The abdominal spasms continued and became very much like Cheynne-Stokes breathing in their rhythm and the respirations soon followed the example. Face and extremities became cyanosed and respirations ceased, although the heart continued to beat for several minutes.

Case III: (J. L.), a clerk, age 38, was admitted January 25, 1921, with a complaint of twitching of the abdominal muscles, pain in the abdominal wall and headache. He had been well until January 4, 1921, when he began to complain of pain in the back of his head. This persisted and January 18, he remained in bed because it was so severe. On the 20th sharp pains in the legs developed and his hands felt numb. The temperature at that time was 101 degrees. January 22d involuntary movements of the legs, arms and abdomen were first noted. The patient became restless and irritable and was taken to a general hospital, where he became disoriented and hallucinated and it became necessary to send him to a mental hospital. There was no history of eye symptoms, difficulty in swallowing, lethargy, etc., prior to admission.

Past History: In May, 1919, he was struck on the side of the head by an iron bar and was dazed but was not unconscious. Since then he had had severe headaches but no character change. In the summer of 1920 there was an ethmoid operation with no complications. No other serious illnesses or injuries.

Neurological: Again the outstanding feature was the shock-like contractions of the abdominal wall—especially of the rectus in the upper right quadrant. On the second day, however, they had become equal on the two sides. They occurred 30 to 40 times per minute and were irregular in force and rhythm. Synchronous with the more severe contractions was flexion of the thighs. The movements continued during sleep but were not so strenuous. There were coarse tremors of the forearms and hands which increased on voluntary movement. Muscular contractions similar to those in the previous cases were present in both upper and lower extremities.

The pupils were equal and regular and reacted well to accommodation, but were very sluggish to light. There was no complaint of blurring or double vision. Extra ocular muscles were not paralyzed. Horizontal nystagmus was present. Ophthalmoscopic examination was negative. Other cranial nerves except for a transient weakness of the left facial were intact. No paralysis, weakness, rigidity or atrophy of the muscles of the extremities was noted. Abdominal and cremasteric reflexes were not obtained. There were no pathological reflexes. The knee jerks were increased were found. The patient complained of numbness in the hands.

Physical Examination: The face was flushed and without expression. Teeth were in poor condition. Epitroclear and inguinal glands were enlarged and hard. The temperature ranged from 101 to 106. Urine showed hyaline and granular casts. W. B. C. was around 16,000. X-ray of head was negative.

Mental Examination: The patient was very restless, pulling at the bed clothes and attempting to get out of bed. He thought the sheets were trousers and tried to put them on. His attention could be gained for brief periods and it was found that he was totally disoriented. He said he heard voices and sounds. No bizarre trends and no affect disturbance except for a slight euphoria were noted.

Clinical Course: From day to day the neurological picture changed but the delirium continued and deepened into coma. On the second day nystagmus was more noticeable. Double ptosis developed; the voice became weak and later on the deep reflexes became sluggish. On the seventh day the patient became comatose, but th movements of the limbs and abdomen continued. The neck became stiff. Fasicular contractions of the muscles of the lower extremities were noted. Cheynne-Stokes breathing developed and on the eighth day respirations ceased.

Case IV. (H. L.), a married woman, age 2?. was admitted March 30, 1922, from a general hospital because she was confused and restless. She was four and one-half months pregnant and for several months had felt "run down." About three weeks before admission she began to have severe pains in her lower extremities, and a diagnosis of neuritis was made. A few days later involuntary movements developed in the extremities. On account of these symptoms she was taken to a general hospital. There it was decided that the pregnancy should not be terminated and she was transferred to a mental hospital because of her overactivity and disorientation. Just before admission a difficulty in speaking due to spasm of the abdominal muscles was noted. No other symptoms peculiar to this disease were present.

Past History: Practically negative. Patient had had two children without any complications. No serious or recent illnesses.

Neurological Examination: Observation on the night of admission showed that the patient

nd mild involuntary twitchings, practically nited to the upper extremities, but showing casionally in the lower ones. Grimmacing id sudden movements of the facial muscles ere also noted. When she spoke, there was times an explosive speech and at other times eech was completely arrested. Investigation evealed that the cause of this was spasm of ie abdominal muscles. These contractions ere not particularly forceful, but became ronger when she spoke. The upper half the abdomen was the part principally inolved and here the movement consisted in rawing in and pulling upward of the abdomal wall. The contractions were arrhythmical. ccurring about 20 to 35 times a minute. All ecial senses and all forms of cutaneous sention were unimpaired. No disturbances of ie cranial nerves were found. The pupils ere equal and regular and reacted well to ght and accommodation. Gait and station ere normal. Co-ordination was impaired—specially in the arms, because of the involunary twitchings. There were no paralyses, trophy, rigidity or weakness of muscles of the xtremities. Superficial and deep reflexes were ll normal. No pathological reflexes elicited.

Physical Examination: The thyroid gland as slightly enlarged. Slight arrhythmia of eart action was noted. Blood pressure was 54/84. Consultation with gynecologist confirmed the diagnosis of prenancy, but the consultant found no indication at the time for mptying the uterus.

Laboratory: The urine showed a slight race of albumin and numerous white blood ells. Kidney function test was normal. White lood count varied between 13,800 and 17,400. o cerebrospinal fluid was obtained.

Mental Examination: On admission the atient talked freely and answered questions elevantly, but her answers showed that she as confused. She thought that she had been the hospital three or four days; was unable o give the day of the week or month correctly, id not know the ages of her children, etc. She aid that she had had "imaginations" but that ey had stopped. That night she thought she aw snakes crawling over her bed and she beame definitely delirious.

Clinical Course: After the first 24 hours ie patient began to improve. The hallucinaons disappeared and orientation became accuate. The involuntary movements lessened, nd the abdominal twitchings were absent at mes. This improvement continued for two eeks and then on April 13, the patient became allucinated in the daytime; the muscular witchings increased; difficulty in breathing eturned and the pulse and temperature were levated. The delirium gradually increased. No further neurological symptoms developed, but the conjunctivae became injected.

April 19th the patient became lethargic and slept for long periods. Incontinence developed. The abdominal contractions became more marked. April 21 Cheynne-Stokes breathing was noticed. A red papular rash appeared over the back and arms. Respirations became more and more shallow, irregular, and labored and on April 23rd respirations ceased.

Case V. (S. S.), a waiter, age 43, was admitted March 31, 1922, because of "delirium tremens and difficulty in breathing," as the admission paper stated. The onset was about three weeks previously and was marked by dizziness and headache which were the only symptoms for two weeks. Then a pain in the right lower quadrant of the abdomen appeared. A diagnosis of appendicitis was made and the patient was rushed to a general hospital, but operation was postponed, as there was no increase in temperature or leucocyte count at the time. The following day involuntary movements of the limbs were noted. The pain subsided, but the patient then began to complain of difficulty in breathing and talking. Two days before admission he became confused and did not recognize those about him. He thought he was at work and would take orders for meals.

The past history revealed nothing of importance except that fifteen years ago there was a luetic infection. Three years ago ulcers developed on the legs and were said to be luetic.

Neurological Examination: As in the other cases, the shock-like contractions of the abdominal muscles with the resulting disturbance of respiration and speech were the most striking feature. The nature of these, i. e., the muscles involved, the rate and intensity, etc., were practically the same as in Case I (G. E. T.). The muscular involvement of the extremities was also of the same nature.

Other neurological findings were as follows: The patient stated at the time of examination that his vision was blurred and that he saw double. Vision and fields of vision could not be tested because of the lethargy. The pupils were equal and regular, but did not react to either light or accommodation. Ophthalmoscopic examination was negative. There was a marked double ptosis. No nystagmus was noted. There was difficulty in convergence. Speech was slurred and thick but not distorted, and the tongue protruded to the right.

Gait was unsteady and ataxic. The muscles of the right arm seemed weaker than those of the left. Co-ordination tests and adiodokokinetic movements were interfered with by the involuntary movements. Deep reflexes of the

arms were exaggerated but equal while in the legs they were diminished. There was a definite Babinski on the left and the right plantar reflex was variable. Abdominal and cremasteric reflexes were very sluggish. Examination of cutaneous sensation was unsatisfactory because of the lethargy.

Physical Examination: Injection of the conjunctivae and of the pharynx was marked. Heart rate was rapid and there was some arrhythmia. There were several copper colored spots on the legs. Blood pressure was 165/100. The temperature was practically 102 at all times. Pulse ran from 100 to 120. Respiratory rate was 22 to 40, there being a gradual increase from day to day.

Laboratory: The leukocyte count was near 15,000 several times and the differential was negative. Urine analysis was also negative. The cerebrospinal fluid contained five small lymphocytes per cubic mm., and there was an increase in globulin and albumin. The colloidal gold reading was 1223443100. Sugar content read 87 mgm. per 100cc. The Wassermann tests on both blood and spinal fluid were negative.

Mental Examination: The mental status was also very similar to that in Case I. The patient was drowsy and confused, yet actually sleeping very little. It was possible to arouse him and obtain fairly relevant answers. However, he would soon drop back into incoherent and irrelevant muttering. There were no bizarre trends or actions. He thought he was at work and would repeat orders for food as if he had just heard them given.

Clinical Course: The general picture remained much the same except for minor neurological changes. When seen on ward rounds on the fifth day, the only new findings were that the ankle jerks were not obtained; the pupils reacted to accommodation but not to light and there was a general rigidity of the muscles of the extremities. The patient was aroused sufficiently to tell his name and age correctly. He asked for a glass of water, and while sitting up to drink it, he suddenly collapsed and fell back on the bed. His face became cyanotic and after a few respirations, breathing ceased. The heart continued to beat for several minutes. Stimulation failed to start respirations. It was quite evident that the immediate cause of death was respiratory failure.

Pathological Report

Autopsies were obtained on Cases II and III. They were done nine and thirteen hours postmortem respectively. The methods of working up the nervous tissues was as follows: blocks were taken from the first frontal, pre- and post-central, second temporal, and calcarine convolutions and the hippocampus of each hemisphere. A number of blocks (four or five) were made from the basal ganglia of each side and two from the thalamus and hypothalamus. The midbrain, pons and medulla were cut practically in their entirety and each block used for one of the staining methods. Three blocks each were made from the cervical, thoracic and lumbar regions of the cord. Other portions of the nervous system were examined when available. The stains employed were cresyl violet for the cells, Mallory's phosphotungstic acid hematoxylin for neuroglia, and the scharlach R stain for fat. Several attempts were made with Alzheimer's methods for degeneration products and ameboid glia, but these were not very successful, as the tissue had been hardened for some time in formalin. A summary of the findings in each case is given.

Case II. At autopsy the pia was found to be markedly injected, particularly over the postchiasmal region, peduncles and pons. The cranial nerves were negative except for the left third one, which was edematous. The brain was hardened entire in formalin.

Microscopic Examination: Sections from the various cortical regions presented essentially the same picture. The pia was normal. Scattered nerve cells were shrunken, stained deeply and diffusely and had opaque eccentric nuclei. Most of the nerve cells, however, stained normally and had a good complement of Nissl bodies. There was no undue satellitosis. The veins here and there showed some slight lymphocytic exudate. Moderate quantities of lipoids were present around the vessels in the white matter. These stained green with cresyl violet and brownish with phosphotungstic acid hematoxylin. The scharlach R stain also brought out considerable deposits of fat in the walls of the cortical capillaries of the frontal and pre-and post-central regions. In the deeper layers of the hippocampal cortex and in Ammon's horn there was quite marked satellitosis, and in the latter situation there was a diffuse increase of nuclei in the white matter, the cells being often aggregated into clusters.

The nerve cells of the caudate, putamen and globus pallidus showed nothing special. There was moderate satellitosis around both large and small nerve cells and apparently some increase of glia nuclei in the tissue and around the vessels. Occasionally a few lymphocytes and some green pigment were found in the perivascular spaces.

The thalamus showed occasional perivascular lipoid exudate. In the hypothalamus there was an area of hemorrhage and some diffuse increase of cells in the tissue.

The cerebellum showed foci of lymphocytic exudate in the pia and some small collections of lymphocytes in the central white matter.

The midbrain showed marked lesions of the ual type. In the nucleus of III practically the nerve cells were affected, the changes ging from chromatolysis to destruction with uronophagia. The cells of the red nucleus owed equally pronounced lesions. Those of substantia nigra were better preserved, although they frequently showed swelling and romatolysis. There was a diffuse increase of clei in the tissue. A number of the large ins were surrounded by exudate, but this ture was rather less marked than is usual in idemic encephalitis. Proliferation of the pillary epithelium was noted, also perivascu- hemorrhage.

The pons was quite as much involved as the dbrain. Although the changes in the nerve lls were less grave and extensive, there was re exudate. The lesions were not confined the dorsal portion, as is usually the case, t were present also in the ventral part. The a was infiltrated. The cells around the ven- cle, including those of the abducens nucleus, most all show chromatolysis. A few cells in e formatio reticularis and the motor nucleus V are also chromolytic, but most are normal. he locus ceruleus is markedly affected. The ntile nuclei frequently show chromatolysis d satellitosis. There is an increase of nuclei d much perivascular exudate throughout the ction. Among the roots of V at their point exit there is considerable infiltration conining a large proportion of polymorphonuears and some phagocytes. The nerve bunes beyond the exudate appear normal.

The pia throughout the entire length of the edulla contains focal infiltration of lymphotes. Section through the middle of the olive veals marked changes in all cell groups of e dorsal portion. Those near the center and the formatio reticularis are the most affected, d those of VIII and XII the least so. A mber of vessels near the raphe and the floor the ventricle are heavily infiltrated. There swelling and proliferation of the vascular enthelium, and a diffuse increase of cells in the ssue. The olivary nuclei are normal.

At the level of the decussation the nerve lls stain well and exudate is somewhat less ronounced than in the upper medulla. Large umbers of hyaloid droplets are present.

The following levels of the cord were examed, the fourth, fifth, sixth and seventh cervial, the mid-dorsal, and the third and fourth mbar. The pia in all these regions shows a ild infiltration chiefly in the anterior fissure. t the fourth cervical the anterior horn cells tain poorly, being misshapen, and their nuclei paque, indistinct in outline and eccentric. he affected cells include the group which is ssumed to be the origin of the phrenic. There s an area of hemorrhage in the anterior horn, but no perivascular infiltration. The white matter is normal. In the fifth, sixth and seventh, the nerve cells are normal as a rule, although an occasional one stains poorly. The vessels of both anterior and posterior horns are heavily infiltrated, and in the seventh cervical some perivascular exudate is present also in the white matter. The mid-dorsal cord shows no exudate.

The large anterior horn cells of the lumbar cord stain excellently. There is considerable satellitosis around the small cells. The vessels of the gray matter are markedly congested and several veins are surrounded by exudate. The posterior roots are normal in all sections. Sections from two posterior root ganglia are also normal.

Sections from two nerves of the cauda showed nothing noteworthy.

The olfactory tract showed a sprinkling of lymphocytes at one point. The second and fifth nerves were normal.

The choroid plexus of the lateral ventricle also appeared normal.

Case III. Macroscopically the pia over the superior surface of the brain was injected and over the central and anterior portion of the parietal region there was quite a collection of clear fluid. The vessels and superficial origins of the nerves were negative. The thecal sac contained bloody fluid. In the cervical portion of the cord there were fresh fibrinous adhesions between the dura and pia.

Microscopic Examinations: The pia in several regions showed marked congestion, some small fresh hemorrhages and pigment-bearing phagocytes, and a slight lymphocytic infiltration. In the cortex the most striking feature was satellitosis in the deeper layers. The nerve cells in general stained normally, though a few showed chromatolysis and displacement of nuclei. Scattered through the tissue were a few plasma cells and some cells having the appearance of ameboid glia, and there was a general increase of nuclei in the white matter. Scanty perivascular exudate was noted around a few vessels. There was marked congestion of the cortical capillaries and in a few places hemorrhages into the perivascular spaces. The abundant satellitosis and the ameboid glia were found only in the precentral and temporal regions. The other changes were present in all areas. There was a diffusely distributed deposit of lipoid pigment, staining green with cresyl violet, around the vessels in the white matter, and considerable deposits of fat in the walls of the cortical capillaries.

The basal ganglia showed some chromatolysis of the large nerve cells, and an increase of satellites, particularly around the smaller cells, with occasional neuronophagia. The vessels were much congested and there were sev-

eral areas of perivascular hemorrhage. A few vessels were surrounded by lymphocytes and chromatophores, and the adventitia of a few of the larger vessels appeared to be proliferating. There was some green lipoid pigment in the perivascular spaces, and occasional fat droplets in the vessel walls. These various changes were found equally in the caudate, putamen and globus pallidus.

The conditions in the thalamus and hypothalamus were similar, and in addition there were numerous plasma cells in the tissue.

In the midbrain lesions were extremely marked around the acqueduct and in the nucleus of III. The cells of the corpora quadrigemina showed much involvement. Satellitosis varied, being quite abundant in some areas and only normal in others. In the red nucleus the majority of the cells stained normally. There was a wide spread heavy perivascular exudate and groups of infiltrating cells throughout the tissue. The substantia nigra showed hemorrhage and slight infiltration.

The cerebellum was not remarkable.

The pons showed numerous abnormal cells among the groups in its dorsal portion. These were most abundant in the nuclei of VI and in the locus ceruleus. Satellitosis was not increased. Numerous other cells in the affected groups appeared entirely normal and had a good complement of Nissl bodies. There was slight perivascular exudate. The pontile nuclei and the ventral portion of the pons generally were not remarkable. The lesions in the pons were less pronounced in this case than in Case II.

Affected cells were also scattered throughout the medulla. They were diffusely distributed, but most conspicuous in the formatio reticularis. Perivascular exudate was markedly focal in character; at the level of the inferior cerebrellar peduncle the larger vessels were heavily infiltrated, while in a section through the inferior olive there was no exudate whatever. The cells of the olivary bodies were normal, and, as in the pons, the lesions were much more marked in the dorsal portion. There were small focal collections of lymphocytes in the pia.

The findings at various levels of the cord were as follows: At the fifth cervical the anterior portion of the pia contained foci of lymphocytes. The nerve cells were normal. There was marked perivascular infiltration in both gray and white matter. At the eighth cervical some cells in the anterior horns showed the axonal reaction and both perivascular exudate and hemorrhages into the gray matter of the anterior and posterior horns were present. Sections from the second or third and the twelfth dorsal showed scattered cells in the anterior, anterolateral groups and Clarke's column which gave the axonal reaction. The mid-dorsal region was normal. There was no perivascular exudate or pial infiltration in the sections of the dorsal cord. The first lumbar showed slight infiltration of the pia in the anterior fissure and around the anterior roots, and a few cells in the various groups giving the axonal reaction. At the fourth lumbar the axonal reaction was present and in addition a cosiderable perivascular exudate.

The posterior roots in all sections were negative.

The following nerves were examined: the olfactory tract showed nothing except some small collections of fat in the vessel walls.

The optic nerves showed a slight lymphocytic infiltration in a few places and some hyaloid droplets. In the nerves of the cauda there was also a scattering of lymphocytes along the vessels in a few places.

The Gasserian ganglion was normal, also its roots.

The choroid plexus of the lateral ventricle appeared normal.

Discussion of Pathology

In summary, both these cases presented similar pathological pictures. The distribution of the lesions was the same in each instance with minor variations—diffuse and mild in the cortex, basal ganglia and thalamus; of the usual intensity in the midbrain; very marked also in the pons; decreasing gradually throughout the medulla; marked again in the cervical cord; mild or absent in the dorsal, and slight in the lumbar cord.

Review of Literature and Discussion

The literature on epidemic encephalitis is now assuming rather large proportions and a complete review of the literature concerning only the particular aspect of the disease under discussion would be too comprehensive for the present article. Therefore, only the more important references are given.

From an historical standpoint it is interesting to note that in 1846 Dubini (1) described an epidemic disease which was probably the same as or closely related to our present disease. Dubini writes, "It is nearly always a fatal disease," characterized "by muscular contractions, occurring at varying intervals, but always identical in each case, as if produced by a repeated electric current." He called it electric chorea.

Boveri (2), Sicard (3), Letvak (4) and other authorities consider that the syndrome of Dubini's "electric chorea" is the same as the disease which they describe under the term of myoclonic epidemic encephalitis. Of course, with no information in regard to etiology or pathology of Dubini's disease, it is impossible to definitely establish that they are one and

same condition. Since Dubini's original description, Morganti (5) in 1854, Grocco (6) in 4, and others have described incidences of same sort of disturbance, epidemically and emically.

n our present epidemics of encephalitis, it ns that in every country where the disease been reported the classical lethargic type le its appearance first and it was not until ear or so later that the hyperkinetic types le their appearance in the syndrome.

Hunt (7), in New York, saw seven cases of it he called "acute infectious myoclonus tiplex" or "epidemic myoclonus multiplex" hin a period of three months in the latpart of 1919. In all his previous experie he had seen only two such cases, and n view of the epidemic nature of this dis:, and its coincidence with the epidemic of ephalitis, he thought this was probably a nifestation of epidemic encephalitis.

Dimitz (8) early in 1920 remarked about sudden change in the epidemic in Vienna n the lethargic type to the type with involary movements. He described arrhythmic nic jerkings of the abdominal muscles and phragm. Economo (9) a few months later iewed the epidemic in Austria and found t there had been a marked change in symptatology so that 60 per cent of the cases e of the hyperkinetic type.

Noveri (2) reports the occurrence in Milan, y, in 1919 of two cases of epidemic encephaı with myoclonic movements of the extremi and abdominal muscles. They were pubed in 1920 under the definite title of "Myonic Form of Epidemic Encephalitis."

icard and Kudelski (3) in January, 1920, in nce described what they called a new afion characterized by an onset of lancinating ns with fever, followed by the appearance of rt, rapid, explosive, rhythmical contracns, resembling those produced by electrical nulation. The exact resemblance to Dui's disease is mentioned and Netter in his cussion of the paper insisted on the iden- of this myoclonic condition with epidemic ephalitis.

n England Ellis (10) was the first to call attion to the myoclonic form there. In July, 0, he gave a description of three cases. "In " he writes, "the most striking feature was forceful shock-like contractions of the abminal muscles, which occurred thirty to ty times per minute."

n Germany the first mention of this form of disease is found in reports by Cohn and uber (12), Holthusen & Hopman (11), and ier writers in 1920. In Holland the myonic form was mentioned by Salomonson 1) in 1920.

Following Sicard's original contribution many other writers in France published case reports under the definite name of myoclonic encephalitis. Among them were Froment and Bouchut (14); Niclot, Cusset and Roubier (15); Roubier and Richard (16); Bronardel, Levaditi and Forestier (32); and Ardin, Deltiel and Raynaud (33).

In America, very little is mentioned concerning this condition after the original contribution of Hunt, until the work of Hamill (19) appeared in July, 1920. In the meantime Reilly (17) in March, 1920, published an "Hitherto Undescribed Sign in the Diagnosis of Lethargic Encephalitis." This sign was a rhythmic twitching of the muscles of the abdomen in the neighborhood of the eighth and ninth ribs. Bassoe (18) later mentions the sign of Reilly. Apparently this was closely related to the myoclonic movements we are dealing with but was not so severe. Hamill made a detailed study of four cases showing myoclonus of the abdominal and other muscles. He demonstrated by kimeograph tracings how the movements were synchronous with one another and with respiration. The fact that the diaphragm was involved was demonstrated by fluoroscopic examination.

The literature on the problem at hand and the cases reported above suggest five topics of discussion that are of special interest. They are (1) the question of classification of epidemic encephalitis; (2) the high mortality of the cases as illustrated above; (3) the relation to epidemic hiccough; (4) the meaning of the term myoclonus; and (5) the localization and nature of the lesion responsible for the myoclonus.

In spite of the rather universal recognition of a myoclonic form of epidemic encephalitis, there is some question as to the advisability of classifying the disease especially from the standpoint of clinical syndromes. Buzzard (21) says that the tendency to recognize different types is deplorable as we should soon have as many types as there are cerebral functions. Walshe (20) objects somewhat to classifying the disease, because "a disease that produces such complex syndromes defies symptomatic classification." Bourges and Marcandier (22) and Kahn (23) have reported cases in which there was a succession of forms, showing somnolence, ocular palsies, choreo-athetoid movements, catatonia or delirium at different stages. Walshe suggests that a classification on an anatomical or pathological basis is most desirable, but, as is often the case, the widespread involvement found in necropsy material only serves to render classification much more difficult. So far clinical data seem of relatively greater value in diagnosis than pathological

findings. In any form there may be symptoms that are more closely associated with other forms, but the predominating symptoms determine the disease picture. One is immediately struck by the similarity of all the cases herein reported, and a description of any one case practically covers the clinical picture and evolution of the others. Where such an entity does exist, even though there are some variations, it seems valuable for clinical work and for research to recognize and name it. We hope to show that the classification is not entirely upon a basis of clinical symptoms but that there is also some pathological basis for it.

In practically every report of a series of cases the high mortality of this form of the disease is mentioned. Chalier (28) speaks of the exceptionally high mortality in cases with myoclonic movements, particularly with participation of the diaphragm. Bing and Staehelin (26) state that the myoclonic type is more malignant than the other forms. Sicard (3) remarks that the mortality was high in his cases. All three cases reported by Ellis (10) were fatal and Bosc (27) had three fatalities out of four cases. Several instances of recovery are also given, and in most of them the myoclonic movements persisted for long periods. Sicard (3), however, felt that if the patient recovered no permanent damage resulted, because the process was mainly an irritative one and there was no gross cell destruction.

The close resemblance of the abdominal twitchings to hiccough has been mentioned in the case reports. The occurrence of epidemics of persistent hiccough in the past few years also suggests a close relation between the two conditions. Ducamp et al (29) report a case of a young woman who in January, 1921, died after a three weeks' febrile illness in which symptoms were intense hiccough with myoclonus of the leg and abdominal muscles, not accompanied by ocular disturbances or lethargy. Hanns (30) mentions an instance where hiccough alone persisted for sixteen days but was followed by symptoms that lead to a definite diagnosis of epidemic encephalitis. Cramer (31) in a review of the literature refers to the similarity of the two conditions and quotes Gautier as considering them the same disease. It is certainly possible as in Hann's (30) case that the involvement of the muscles of respiration be so prominent and the other symptoms be so in abeyance or actually absent that a diagnosis of hiccough would be made.

The term myoclonus has been rather loosely used, and is not defined the same by all writers. The term was first employed by Friedreich in 1881 in his description of myoclonus multiplex. The definitions of Oppenheim, Marinesco and Sicard all differ somewhat, but from their statements and from direct observation o cases, the following conclusions were reached The term myoclonus should be used to desig nate short, rapid, explosive contractions of in dividual muscles or portions of muscles an even groups of muscles but not synergi groups of muscles so that the resulting loco motor effect is comparatively slight. Thes movements are not absolutely rhythmical, al though there is a tendency for them to appea about thirty to fifty times per minute. Prac tically all the voluntary musculature of th body may be involved, but the principal in volvement is in the extremities, abdomen, an diaphragm, while the eye muscles are probabl not involved. Fibrillary twitching of the af fected muscles may or may not be present. Th movements are influenced but not controlle by the will and do not entirely disappear dur ing sleep. The patients are at times strangel unaware of their occurrence.

Without any definite reference to patholog ical material many writers tried to localize theoretically the process that was responsibl for these movements. Economo (9) gave th impression that he thought that the myoclonic twitchings were cortical. Hamill (19), after observing that the movements were synchron ous with respiration, states, "It is safe to as sume that the twitches are expressions of in volvement of some complex or center in the mid or hind brain, that is in direct connection with the respiratory center." He thought that th movements were too uniformly bilateral and symmetrical to be cortical. Hammil's descrip tion of the movements he observed differs in a few details from that given by others; so it is possible that he was dealing with a somewhat different condition. On the other hand, it is possible that the synchronism of the move ments of the extremities and respiration was due not to a lesion in the mid or hind brain but to the fact that with the forceful contraction of the respiratory muscles, respiration mechanically occurred, and therefore the two had to be synchronous.

Hunt (7), in his original contribution to the subject, stated that myoclonus is unquestionably referable to the lower motor and sensory neurones, either in the cord or in the peripheral nerves. Reilly admitted the difficulty in distinguishing between cortical and spinal irritation. He speaks of all grades from the coarse segmental movements of cortical origin to the fine fibrillations characteristic of ventral horn irritation. He admits that spinal movements are myoclonic in character. Direct evidence in regard to the origin of these clonic contractions is to be found in two cases reported by Sicard, in which clonic contractions in the upper limbs gave place to a paresis of peripheral type, namely, extensor weakness with wrist

)p. Walshe also presents much evidence to)ve that these movements are of spinal gin. The random distribution of the move- nts, their frequent association with neural- pains of peripheral or spinal root distribu- n; the presence of fibrillary and fascicular itching all point to the lower motor neurone the seat of an irritative or exciting lesion. e above reasons also point to the nature of lesion being an irritative one rather than a ease of lower centers from higher control :h as occurs in the more orderly movements the tremor and athetosis variety. The occur- ıce of Jacksonian fits indicates that the us of epidemic encephalitis can and does act an irritant on nerve cells.

Conclusions

1. From the cases reported above and from)se found in the literature, it seems that the nical picture is sufficiently definite to justify recognition of a myoclonic form of epidemic cephalitis.

2. In this form the mortality is much higher ın in the other forms. According to our tistics and those of others the fatalities run m 60 to 100 per cent, while in epidemic en-)halitis in general the percentage is from 20 30 or even lower, according to some ob- vers.

3. The relation of this form of the disease epidemic hiccough must always be kept in nd.

4. Theoretically the localization of the ion producing the myoclonus would seem to in the lower motor neurones. The ıdy of the pathological material in two of ese cases tends to bear out this theory to a tain extent. However, with such marked d diffuse pathology as occurs in these cases, absolute localization of a lesion producing certain symptom is practically impossible. ırther study of such cases, a comparison of ese with other forms of the disease and a re- ew of the literature on the pathology of epi- mic encephalitis may throw some light on e question. This work is being carried out one of us (M. E. M.) and will be published the near future.

Bibliography

1. Dubini, A.; Primi Cenni sulla Corea Elettrica. I Congresso degli Scienziati Italiani Napoli. Annali iversali di Medicina, Gennaio, 1846.
2. Boveri, P.; Myoclonic Form of Epidemic En- phalitis. Brit. Med. Jour., 1920, I, p. 570.
3. Sicard et Kudelski: Myoclonic acute encepha- is. Bull. et Mem. Soc. Med des Pop. de Paris, 1920, p. 94, 121, 123.
4. Letvak: Acute Myoclonic Encephalitis and the ectric Chorea of Dubini. Ref. Med. March 27, 1920.
5. Morganti: Gazetta Med. Lomb. 1853-4.
6. Grocco: Studie Considerazione sulla Core Elet- ica o Mallattia del Dubini. Annali Universali di edicina, vol. 269, 1884.
7. Hunt, J. Ramsay: Acute Infectious Myoclonus ultiplex and Epidemic Myoclonus Multiplex. Neur. all. Vol II, November, December, 1919.
8. Dimitz, L. Encephalitis epidemica choreiformis. Wien. klin. Wochenschr. 33:163, Feb. 19, 1920.
9. Economo, C. The 1920 epidemic of lethargic encephalitis. Wien. klin. Wochenschr. 33:329 and 361, April 15, 1920.
10. Ellis, A. W. M.; The Myoclonus Form of Epidemic Encephalitis. Lancet, Vol. CXCIX, p. 145, July 17, 1920.
11. Holthusen and Hopman; Deutsch. Zeitschr. f. Nervenheilk, July, 1921, Vol. 72.
12. Cohn, W. und Lauber, I., Zur Frage der Encephalitis epidemica. Munchen Med. Wochnsch. 1920, LXVII, p. 688.
13. Salomonson, W. A. Wertheim; A case of Rhythmical Hyperkinesis. Nederlansch. Tydschr, voor Geneeskunde, 1920, LXIV, H2, p. 2622.
14. Froment, J. and Bouchut; Myoclonic Epidemic Encephalitis. Lyon Medical 1920, CXXIX, p. 445.
15. Niclot, Cusset and Roubier, C. Acute Myoclonic Encephalitis with Lingual Hemiparesis. Lyon Medical 1920, CXXIX, p. 453.
16. Roubier and Richard; Myoclonic Encephalitis of Rapid course. Lyon Medical 1920 CXXIX, p. 452.
17. Reilly, T. F.; Hitherto undescribed Sign in Diagnosis of Lethargic Encephalitis. J. A. M. A. 74, p. 735, March 13, 1920.
18. Bassoe, Peter; The Delirious and Meningo-Radicular types of Epidemic Encephalitis. J. A. M. A. 74, p. 1009.
19. Hamill, R. C.; Encephalitis with Involuntary Movements. Arch. Neur. and Psych. IV, p. 44, 1920.
20 Walshe, F. M. R.; On the Symptom-Complexes of Lethargic Encephalitis with Special Reference to Involuntary Muscular Contractions. Brain, Vol. 43, p. 197, November, 1920.
21. Buzzard, E. Farquhar. Lethargic Encephalitis. Brit. Med. Jour., Nov. 20, 1920, 2:782.
22. Bourges et Marcandier; Epidemic Encephalitis. Bull. et Mem. Soc. med. des Hop. Paris. 1920, 44, 685 and 842, p. 125.
23. Kahn: Epidemic Encephalitis Ibid, 1920, p. 542, Vol. 44, April 30, 1920.
24. Mariesco: Formes de l'encephalite lethargique. Rev. Neurol. Jan., 1921, p. 1.
25. Reilly, H. A. The Spinal Forms of Epidemic Encephalitis. Arch. Neur. and Psych. April, 1921, Vol. 5, p. 408.
26. Bing and Staehelin: Epidemic Encephalitis. Schweizerische Med. Wochenschrift. 52, No. 6, Feb. 9, 1922.
27. Bosc, F. Myoclonus in Lethargic Encephalitis. Bull. et Mem. de la Soc. des Hop. July 16, 1920, 44:1042.
28. Chalier, J. Progress and Treatment of Epidemic Encephalitis. Presse Med. April 25, 1920, Vol. 28.
29. Ducamp, Carrien, Blouguier de Claret and Tzelepoglon. Epidemic Hiccough with Generalized Myoclonic Movements. Bull. de l'Acad. de med. 86, p. 249, Nov. 8, 1921.
30. Hanns, A. Epidemic Hiccup. Prog. Med. May 28 ,1921, 36:257.
31. Cramer, A. Lethargic Encephalitis. Rev. Med. de la Suisse romande. May, 1920, 40:277.
32. Bronardel, Levaditi and Forestier. Bull. et Mem. Soc. med des. Hop Paris, March 19, 1920.
33. Ardin. Delteil et Raynaud. Nouvelles modalites cliniques de l'enceph. les formes choreiques. Ibid. March 5, 1920.
34. Friedreich. Paramyoclonus Multiplex. Virchows Arch. f. path. Anat. 86, 421, 1881.

DEPARTURE

Childhood leaves so silently,
That we do not feel it going—
As the perfume of a rose
Drifts away, so childhood goes;
As a breeze, one moment blowing,
Sways the branches, then departs,
Childhood leaves our wistful hearts.

Childhood goes so quietly,
That we do not mark its going—
Only, after it is gone,
Dreams as rosy as the dawn
Leave us—and we drift, unknowing.

—Margaret E. Sangster, in the New York Sun

THE CRITERION

If a doctor lacks sense in other things, he is sure to lack it in medicine and surgery. Let me hear a doctor whether his medical advice is of any account.—Ed. Howe's Magazine.

WHAT IS YOUR HOBBY?

J. HARVEY CLEAVER, M. D.,
Los Angeles, Calif.

AS I seriously consider this question, and look back over my past life to find the reply, I am impelled to answer, One of my hobbies has been to seek the acquaintance, to study the character of people who in the final analysis have had a hobby. The dictionary definition given briefly, is "favorite pursuit; ruling passion." To obtain a fair discussion of the subject I shall assume the word hobby to be a center around which by ever widening circles words that are akin, or related to it may be considered such as the slangy word crank, fadist, etc. Closely related is habit, custom, fashion, and these lead to eccentricity and peculiarities ultimately developing a hobby, or hobbies. The word is akin to visionary, delusions, illusions, obsessions, monomania and certain forms of insanity. A valued friend, after residing for some time in my home adjoining my office, declared one day, "The majority of the people that visit your office are cranks on some subject." I did not deny the statement, because I sensed the truth years ago, that the person with a hobby was worth while, especially so if it was a laudable one. Unfortunately all hobbies are not laudable ones, nor beneficial to their possessors. Vicious habits, wasteful pastimes, harmful indulgence, criminal wickedness may become a veritable hobby and lead to ultimate disaster. However, we wish to dwell more, to deal more, with the optimist, the enthusiast, the idealist, the one with a vision, the prodigy, the genius—one inspired or possessed with the conviction that he had a mission, a veritable duty to perform in life. While the hordes of human beings pass away, and their lives and acts are unrecorded. History deals with countless individuals, noted characters, path blazers, who have performed certain things better than others, that have hobbies. Their names ring down the ages, their thoughts and acts are idealized, they are worshiped as heroes, as models, are idealized by millions of people who indulge their special hobby, and receive lifelong pleasure thereby.

This especially applies to literature, music, invention, statesmanship and countless others of lesser degree. An aged inmate in one of the insane institutions during his waking hours persisted in riding a broomstick up and down the corridors, going through all the antics of riding an unbroken colt. The imaginary horse would rare, kick, jump, buck and gallop off, and the rider maintain his mount with difficulty. Someone said to him, "Why don't you hold that horse—why don't you stop him?" can't," replied the rider, "he's a hobby." H deeply interesting this subject can becom us, how especially is it adapted to the need this club, what food for thought, what gem truth, what romantic, poetic, mystical mate may be evolved. How many pathways thro the force of suggestion may be traced out le ing up to intensely interesting conclusions garding hobbies.

Let us recall the various acquaintances t as a pastime, as an amusement, as a recreat pursued some hobby. The collector of post stamps, of old and rare coins, of shells, of n erals, of bugs, butterflies, stuffed birds, r books and pictures. In childhood days the lector of beads, of buttons, marbles, the that gathered up everything with bulg pockets. The girl with quilt patches, young man with neckties of questionable wrinkled, soiled, faded, but neevrtheless h onto with extreme tenacity. Then later on friends with the phonograph—canned ventr quism—just one more record you must lis to. If perchance you escaped with a sigh relief, you may have landed in the web of kodak fiend, and for seeming hours you w forced to view and enthuse over an end chain of dimly outlined monotonous pictu the central feature usually in each being th self in various poses—sometimes with fish tackle and borrowed or purchased fish. B mountain stream with auto and basket dim by a smoking camp fire, or bathing at the be stripped to a shameful degree, perhaps w friends evincing a freshness and lack of m esty that would bring a blush to a wooden dian. And so from our hobby friends we b receive pleasure and pain, and oftimes s solitude, that the mind untrameled may en in imagination its own hobbies—constr castles in the air, build mansions in the clou and again indulge in childhood day dreams.

So, drifting in thought, I recall that I have my pocket a motto card, given to me by a d friend as he boarded a train at one of the s tions in this city in the spring of 1914. It is near worn out that I keep it in an envelope, a when the envelope wears out another is p vided. It reads, "Keep in your heart a shr to the ideal, and upon this altar let the never die out." This implies a hobby. T beseeches, implores, forewarns you to look yond the sordid things of life, the hardshi the heartaches, the heartbreaks—to look your ideal—because to quote again, "Son where beneath the stars there is something th you alone were meant to do. Never rest un you have found out what it is." I have framed motto in my office, "Blessed is th man who has found his work." And anoth by a friend passed to the beyond—Floren

Read before the Individuals Club, Los Angeles, Calif.

itley—"The purpose of earth life is not to a heaven, but to make one." What a ightful truth this is. How few people find r occupation satisfactory, restful, pleasur-. The constant habit of magnifying the un-sant features of their work, the continual gestion to their subjective minds that they out of place, a misfit, chasing this pessimis-obby till the milk of human kindness has d out, and a grouch developed, nursing a vance that should be buried deeply and a bstone erected with the inscription, "A is fully performed when done cheerfully, ingly, promptly." The philosophy of Tom yer, who, being assigned a task of fence tewashing as a punishment, wittily turned to a work of art, and so interested the other s that he not only had the work done by n, but received in payment their various psakes and treasures.

o the observing physician, the value of bies, under the classification of habits, has limit as a factor in promoting health. The an body is the most intricate mechanism have to deal with on this earth plane. The an mind that, for a few brief years at t, pilots this frail housement of the soul over 's tempestuous seas has a responsibility that ppalling to the serious thinker. Nature her- undoubtedly recognizes this great truth, smuch as for at least a third of the time she umes the responsibility herself by inducing p. And so this mariner (the mind) through force of suggestion develops habits that are itable hobbies that either guides this frail sel through placid waters, satisfying health ing streams, or drifts into tempestuous cur-ts of vicious injurious habits—that become bies—and if not abandoned, ultimately rtake disaster and end in tragical wreckage. nce the young should cultivate a love of ir work, make a hobby of it if possible—ke a hobby of saving, of accumulating some-ng for a future use. To older people who by gality and industry, proper management, d fortune or otherwise, have accumulated ficient coin of the realm "to feed and house, indulging in laudable hobbies should be en-raged—healthful pursuits and amusements way of games, of travel by auto or rail, visit- and sight seeing. But the hobby of hunt- and fishing, the taking of life for mere asure and pastime and selfish entertainment uld not be encouraged. Better a hobby that ngs sunshine into the lives of those less for-ate, that opens the door of opportunity to down-trodden, that helps others to help mselves, as has been the hobby of many lanthropists, of whom Andrew Carnegie is a iseworthy example.

Again in lighter vein. The hobbies of big siness. The various trade-marks, slogans on billboards, posters, newspaper. That lead people like the bell wether of a flock of sheep. Dozens of them, yes, 57 varieties, and then some; the Old Dutch Cleanser "that chases dirt"; the soap that floats; the one that says, "Good morning"; "His master's voice"; and "Sunny Jim." Down the corridors of time, back to the days of Barnum, who, with his monstrous elephant, Jumbo, set the heart of every child ablaze with wonder and curiosity, and actually coined a new word for an already cumbersome dictionary. And so it is that much in this life of value, of misfortune, of sorrow, of success and the praiseworthy goal of individual happiness, evolves from having hobbies.

518 Wright-Callender Building.

MY FRIEND, THE DOCTOR

By DR. GUY BOGART,
Los Angeles, Cal.

"He had compassion on him,
And went to him,
And bound up his wounds,
Pouring in oil and wine,
And set him on his own beast,
And brought him to an inn,
And took care of him.
On the morrow when he departed
Taking a bit of money from his pocket,
He gave this to the host, bidding him
Care for the unfortunate,
Saying,
Whatever extra you spend on this man,
I shall square with you on my return."

—Dr. Luke.

DO YOU know Dr. Luke? He practiced medicine something over two thousand years ago; yet he is a good friend to many millions of folks yet. Dr. Luke was not one of the apostles of The Great Physician, but he was a friend to all of them and to Paul. Indeed the latter speaks of "Luke, the beloved physician." Luke as a friend of these early teachers and as a doctor was able to give some interesting facts about Jesus. He is the only narrator to include the story of the Good Samaritan and the incident of the healing of Malchus' ear, and has more to say than any of the other biographers of the miracles of healing.

"The beloved physician," the "friend" of the apostles.

Isn't that about the story of the man of healing all along the line? Think—professional and laity alike—how much the doctor has entered your life. I don't mean in those hours of sickness and agony when he has been called into consultation, but in the social, literary and general progressive steps of life. I am not a practicing physician—I am a minis-

ter to the world at large, but the doctors have played a mighty big part in the quiet little annals of my life.

These thoughts came to me as I turned many times in the past few days to the only book which I keep on my desk regularly. I refer to the indispensable friend of the public man, "Who's Who in America," which A. N. Marquis has developed into a national institution. One outstanding fact that has come to me as I have turned the pages here and there quite regularly is the frequency with which the doctors, surgeons, healers figure on this Chicago publication. Not being a statistician I could not say what proportion of the more than 24,000 biographies are of men of medical science.

Into how many social or scientific or any kind of public meetings will you go in which you do not find somewhere a doctor or two playing an active part? I didn't notice much about things at 6:41 p. m. one October day, back in the eighties, when Dr. Tom Bertinshaw is said to have played something of an important role after my birth. The joke is said to have been on Dr. Tom and on my doctor Dad (the late Dr. G. Henri Bogart), for I had taken the matter into my own hands and all the physician needed to do for me was to sign the birth certificate. That's a way I've been going pretty muchly through life ever since. Of course there was the time after Dad had set a broken arm, a few years after the incident of my birth, when I slipped again in a bit of venturing and had to be carried to Dr. Bill Berry of Brookville, Ind., with a compound fracture. Here begins my first recollection of doctors.

I'll never forget that grand little man of science and love, Dr. William Colby Cooper, now gone to join his friends, James Whitcomb Riley and Dr. Matthews. Dr. Cooper was a professor in the Eclectic Medical College of Cincinnati (where, by the way, my other warm friend, the late centenarian, Dr. James M. Peebles, once taught and from which a few members of my family connections have graduated). Between times he edited the "Medical Gleaner," wrote books and magaine articles and conducted a large practice. Sometime I'd like to take time to write a song sermon on this friend of men who did so much to brighten and mould my youthful career—or whatever it was besides measles, whooping cough, etc., I was passing through before I realized that making a living interfered awfully with this career business.

You see my first old American ancestor rather started the doctor fashion in the family. Evaradus Bogardus (French-Hollander of old Hugenot stock) landed in New Amsterdam in 1616 and spread out over considerable activity. He occupied something of what I believe it was Oliver Wendell Holmes called "not a chair but a settee." He was physician school teacher and minister. Records don't say, but I suppose he was also something of a politician. Dad and his brother followed the family habit, while mother's father was the late William S. Duncan, M. D.

And I'm glad to have had this association with men who have done so much as a class. They have their faults. Any kind of specialization or professionalism is more or less of a crystalization, but that can't be helped. The doctors have not only gone forth to heal, but they have written a considerable number of the laws of the nation, written some of its most beautiful poems and songs and a goodly proportion of its books, and have kept ever active in civic and humanitarian lines.

Yes, I like to think of all the things scientific, literary and civic these busy doctors have found time to do. But when I get time to sit and think—as happens often when I'm on time at an appointment with some fellow at one of Hollywood's motion picture studios—I just spend it in thinking what, after all, is just the most distinguishing feature of the physician. It usually ends something like this. I take him—this big composite fellow, the M. D., by the hand, and turning to the world, I wear my biggest company smile—and thinking of such genial fellows as Dr. Charles Wood Fassett I say—

"Mr. World, meet my friend, the Doctor."

DIATHERMY IN PNEUMONIA—A REPORT OF TEN CASES

By HARRY EATON STEWART, M. D.,
New Haven, Conn., Consultant in Physiotherapy, U. S. Public Health Service.

THESE cases are from my consulting service in the U. S. Marine Hospital, No. 21, New York, reported by permission of Col. George B. Young, medical officer in charge. There have been reported heretofore a number of cases of pneumonia, treated by diathermy. In most if not all of these cases there was lacking the laboratory reports, clinical records, etc., which largely obviated these reports being accepted at their face value. You do not need to be reminded of the extreme caution that must be exercised in accepting any treatment as specific in this disease, which varies so greatly in type and mortality in different seasonal epidemics.

Diathermy is a form of conversive heat, generated deep in the tissues between th poles of

Read at the Thirty-second Annual Meeting of the American Electrotherapeutic Associatio at New York, N. Y., September 19, 1922. Reprinted from the Am. Jour of Elec. and Radiology.

d'Arsonval type of high frequency current. e machine used was of the portable type, able of delivering up to 2500 milliamperes current.

he current was turned on slowly, the rheo- t slowly advanced until a maximum of 0 milliamperes was reached in about four utes.,This was continued for twenty min- s and slowly cut down in about two min- s.

here are at least eleven different tech- ues in the use of diathermy. The tech- ue used in all of these cases is the through through bipolar method, with flexible com- ition metal plates, about 4x7 inches, placed ctly over the affected lobes auteriorally posteriorarlly. A hot shaving soap lather applied to the skin and electrodes. The ient lay on the posterior electrode, support- by a pillow, the anterior one was held gent- but firmly, on the chest wall. The enthu- tic co-operation of the hospital staff aided atly in carrying out this study.

he physical findings in each case were de by the ward surgeons, Dr. Trimmer and Boland, and the chief of the medical serv- Major Bryan. The X-rays were taken in hospital laboratory. The laboratory find- s were made by the chief of that service, Taylor, and the only function of the de- tment of physiotherapy was to give the atments. The head aide, Miss Cargill, gave the treatments personally. The cases se- ed were nearly all those, which in the opin- of the medical chief, were in an extremely ical condition. Complete physical and lab- tory findings in each case I have here if of you are interested in looking them over. complete reading of them would extend the e far beyond that allowed for the paper. ill, however, read a brief summary of each e.

ase I. G. L., 39, white, merchant seaman. nily history: one brother died of tubercu- is. Past history: negative.

he patient was admitted to the hospital uary 7, 1922, and had a chill that evening. hysical findings, showed congestion of en- left lung, a few scattered rales on the ht, otherwise negative. Sputum showed ptococci, no pneumonocci.

-ray examination: showed the entire left st dense and heart displaced to the right, gestive of fluid. Tapped twice, no fluind ained.

iagnosis: Lobar pneumonia. On the 5th of the disease, patient's condition very l, the relatives were notified. Diathermy s started in hope that it might help him. mperature started down by lysis immedi- ly after treatment. Treatment was con- tinued twice a day for six days and then once a day. The most striking thing about this case was the immediate relief of pain and dis- tress, and the improvement in the circulation. He apparently began to improve steadily from the first treatment and has made an unin- terrupted recovery.

Case II. C. M., 24, white, merchant sea- man. History: entered hospital January 24th. Complained of headache, sore throat, and pain in extremities. Pain in right chest. Temper- ature 103 degrees. Pulse 112 degrees. Res- piration 24.

Physical examination: tonsils slightly en- larged and reddened. Heart normal. Lungs, to-and-fro friction rub at left base posterially. A few fine crepitant rales at angle of left scapula, otherwise negative. Sharp variations of temperature for two days, simulated mala- ria. Two blood smears negative. Wasser- man four plus. Urine negative. January 27th, area over chest below right scapula over which the percussion note was dull. Broncho- vesicular breathing, with numerous fine crep- itant rales. Diagnosis: Broncho pneumonia.

X-ray examination: January 28th. Increased density, lower lobe of right lung.

Diathermy began on the 28th and continued daily. Temperature dropped permanently on the 29th and he made an uninterrupted recov- ery. X-ray, January 31st, three days after the first one showed marked clearing in the involved area of the right lung. Marked re- lief varying from two to four hours followed each application of diathermy, noted by the nurse and the ward surgeon.

Case III. A. H., 37, white, merchant sea- man. Family history: negative. Present ill- ness: admitted hospital January 19th. Two days before entering had a severe chill, pain in extremities and back and headache. Ex- treme prostration and cough. On entering the hospital temperature was 101 degrees. which rose to 104 degrees within seven hours.

Physical examination: heart normal. Coarse bubbling rales over both bronchi, a dullness over base of the left lung. Breath sounds harsh through entire left lung. January 21st, patient's condition much worse, pulse 136, and thready, respiration 44 and labored. Chest showed well developed lobar pneumonia at right base and pleurisy with effusions at the left base. W. B. C. 46,000, 82 per cent polys. Diathermy applied three times, twice during day and once at night on the 21st. Patient showed temporary improvement that was marked. On the 22nd, the patient developed hemorrhage rash on the back and upper ex- tremities. General condition, critical. Pa- tient died on the 22nd, 8 p. m. Blood culture

18 hours incubation, showed streptococcus veridans septicemia.

,Autopsy: lobar pneumonia on the right, central pneumonia on the left, pleurisy with effusions on the left, septicemia. In the pleura an exudate about 1-8th inch thick, which covered the pleura.

Case IV. W. S., 19, white, merchant seaman.

History: had a chill day before entering hospital. Admitted January 19th. Temperature 104 degrees, pulse 105, respiration 36. Acutely ill.

Physical signs: percussion note dull over area below left scapula. Fremitus increased. Distinct broncho vesicular breathing with a few fine crepitant rales. January 20th. Examination showed clear-cut lobar pneumonia. Left lower lobe. Sputum examination. Pneumococci type 4. Wasserman negative. White cell count 28,600, 78% polys.

Diathermy began on the 22nd and repeated twice daily. Patient was delerious from the 21st to the 23rd. Temperature fell by lysis, recovery was uninterrupted.

Case V. E. R., 26, white, merchant seaman.

History. admitted February 3, 1922. Taken with frontal headache, weakness, severe pain in left chest the previous day. Pain on inspiration or coughing.

Examination: Throat negative, chest, left base posteriorally a loud friction rub. Harsh breathing over both bases. Given mustard plaster, asperin gr. 10 q.4 h. and amon. carb. and cod. p.r.n.

The next day left base gave bronchial breathing whispered pectoriloquy and dullness almost flat.

Diagnosis: Lobar pneumonia. Type IV pneumococcus.

Diathermy started twice daily which lessened pain. On the 7th the right middle lobe became involved and a real double pneumonia developed. On this day condition reported desperate, patient "filling up." Greatly improved by two diathermy treatments three hours apart and temperature began to come down by lysis reaching normal on the 10th.

Case VI. G. S., 32, white male, merchant seaman.

History: had chill and became ill two days ago. Admitted February 13, 1922.

Examination: chest showed patch of consolidation below right scapula. Bronchial breathing.

Diagnosis: Lobar pneumonia. Type IV (February 15th).

Diathermy twice daily with improved symptoms and fall of temperature by lysis.

Lab.. Urine negative for albumen or sugar.

X-ray of chest showed mottling and fibrosis of right lung suspicious of T. B.

Sputum negative for T. B. Pneumococcu Type IV.

Blood w.b.c. 21,200, 82 per cent polys.

Temperature reached nearly to normal Feb ruary 18th. Diathermy discontinued.

March 3rd. Left lung became involved Many rales in right base still.

Dithermy twice daily. Irrational two day with high fever which returned to normal o the 8th and 9th, followed by rapid recovery.

Case VII. J. R., 37, white male, merchan seaman.

History: very ill for several days. Admit ted February 16, 1922.

Examination: right base flat, bronchia breathing. Patient cyanotic, pulse 120. Tem perature 103.4. Prune juice sputum.

Diagnosis: February 17th. Lobar pneu monia: Sputum Type IV pneumococcus.

Diathermy twice daily begun at once.

Temperature started down immediately b lysis, with general improvement.

Urine Sp. Gr. 1027 Alb. trace pus present X-ray upper right lobe dense.

Sputum negative for T. B.

Made a slow, uninterrupted recovery.

Case VIII. O. Y., 28, mongolian male, for eign seaman.

History: felt ill three days before admis sion on February 22, 1922.

Examination: chest shows rales and harsh ness throughout. Cardiac mitral murmu Left base harshness and bronchial breathing

Diagnosis: Lobar pneumonia. Type unde termined. Diathermy twice daily. Lab. re ports: blood hemoglobin 100 per cent, whit blood cor. 10,000. Wasserman, Neg.

Temperature started down by lysis after th first diathermy treatment. Recovery rapid.

Case IX. A. H. B., 31, white male, mer chant seaman.

History: acutely ill four days before admis sion February 23, 1922.

Examination: scattered rales and harsh res piration throughout chest. Pulse 96, Resp 36, temperature 105. Dyspnoeic and cyano tic. Suspected influenza. February 25th de veloped dullness in right base with bronchia breathing. Cyanosis more marked. Resp. 4 and shallow. Pulse 112.

Diagnosis: Lobar pneumonia. Diathermy twice daily. Lab. no virulent pneumococci Blood hemoglobin 75 per cent, w.b.c. 10,000.

February 26th: heart enlarged to left Mitral systolic murmur. Patient irrational Temperature came down by lysis after the first diathermy treatment. Recovery rapid and uneventful.

Case X. W. McD., 52, white, male, merchant seaman.

History: slightly ill for two days. Admitted March 4.

Examination: right chest anteriorly shows dullness, prolonged respiratory note. Friction rub posteriorly with a few rales.

March 6th: dullness increased at right base, vocal fremitus bronchical breathing.

Diagnosis: Lobar pneumonia. Diathermy started twice daily to March 13th with steady improvement in all symptoms and temperature drop by lysis. Lab.: Urine Sp. gr. 1023. Sugar negative. Albumen trace. Sputum, unsatisfactory for typeing.

March 15th: much improved, diathermy once daily. Recovery rapid and uneventful.

Conclusions: The results in these cases are suggestive that diathermy may have an influence in hastening recovery in pneumonia. The evidence is not at all conclusive. In several of the cases the diathermy was not instituted until in favorable cases the temperature might be expected to start downward, but it is the opinion of the medical staff who selected these as test cases that diathermy helped in their recovery. When we have had many more cases to report on, we hope to be able to make a more definite statement, but this much we do know, that in every single case and in almost every single treatment the temporary effect upon the patients was remarkable. Cyanosis disappeared. The expiratory grunt when present was markedly lessened or stopped entirely. Respirations were less labored and the patient received from two to four hours of very marked relief, in many cases obtaining sound sleep. Now diathermy has been ordered as soon as the diagnosis is made in every case of pneumonia at the Marine Hospital.

It is not too much to assume that in many critical cases this marked relief of symptoms may be the turning point in disease. Under proper technique there is no danger of ill effects from two or even three diathermy treatments per day. The proper technique is of the greatest importance. The fall of temperature takes place by lysis where diathermy is used.

Pneumonia attacks all ages and the rugged as well as the weak. The death rate is so high that any method of treatment which will lessen it to any extent would be invaluable. The results of this work are sufficiently encouraging to justify the wider employment of diathermy in this disease.

420 Temple Street.

¶ The figures of the Census Bureau for 1921 show that the death rate of the United States for 1921 was a record low one.

AMOEBIC COLITIS WITH PERFORATION

(Clinical and Autopsy Report)

By JOHN W. SHUMAN, F. A. C. P., Professor of Internal Medicine, and DOUGLAS CRUIKSHANK, M.D., Professor of Pathology, American University of Beirut, Syria.

DYSENTERY may be caused by the infection of the colon with the amoeba coli. Mild ulceration is frequent. The ulceration may succeed in penetrating all coats. Taylor (Text p. 161) states that perforation of the colon takes place rarely and is invariably fatal. With the latter we agree, but as to the rarity we question. If autopsies were the rule in all cases dying of dysentery it is quite likely that more perforations would be found. In our case no clinical note was made concerning perforation nor was it suspected. It may be added that amoebic dysentery is no rarity in this locality. One-fifth of the medical cases in the hospital at this writing are suffering from this malady. Death from amoebic dysentery is infrequent if the patient be given proper care at an early date.

Three faults in diagnosis and treatment are common: 1. Making a diagnosis without microscopic confirmation. 2. Discharging the patient before he is free of the protozoa. 3. Ill-advised treatment.

An organ that has been so disturbed as the colon in dysentery needs REST. This is not practised, for the usual thing is to add insult to injury by administering a purge, usually castor oil. To secure rest to the gut the bed, morphine and splintering the abdomen with a hot water bottle are effective. Boiled hot milk, 200 to 250 c.c. every two or three hours, should be the diet. A wide flannel binder splints and warms the abdomen thereby adding comfort to the patient. A tannic acid enema is an adjunct. That emetine is a specific is questionable. Frequently in this country a double infection is at work, e. g. bacillary and amoebic. In such cases, if severe, it would seem wise to administer both anti-dysenteric serum and emetine.

Case Report

No. 17422, Armenian refugee, age 36, was admitted to the A. U. B. hospital, November 3, 1922, complaining of ten stools per day for the previous four weeks. One week prior he had sought admittance to the hospital but was turned away on account of lack of accommodation. He was greatly emaciated, very weak and sweating profusely. His mouth was "septic." Temperature 99, pulse 100, colon tender, W.B.C. 17,000, trace of albumen in the urine, amoeba hystolitica in the stools. The patient received treatment according to the old regime, castor oil, bismuth and emetine. This in no way ameliorated the diarrhoea and the patient

died November 13th. Clinical diagnosis of cause of death—exhaustive diarrhoea (amoebic).

Extract from Autopsy Report, November 14th

Intestines greatly distended with gas. Greater omentum plastered to caecum by thin fibrinous deposit. Vessels of caecum markedly congested and a perforation about a half centimeter in diameter had been closed by this adhesion of the omentum. Other areas of congestion noted over large intestines. Sigmoid was almost entirely denuded of its mucous membrane, was pale and showed no sign of inflammatory reaction. There was marked shallow ulceration throughout the large intestine. The mucous membrane of the caecum was deep red in color. It was estimated that more than half of the mucous membrane of the large intestine was entirely absent and the balance was greatly undermined and thereby separated from the underlying structure, which was smooth and thin and perforated easily.

Anatomical Diagnosis

Ulcerative colitis with perforation. In our opinion the perforation was not the cause of death but the patient died of exhaustion.

ACUTE RHEUMATIC FEVER

More prevalent from January to April.

Comes on with a chill, followed by fever and profuse sweating.

Is more common in certain periods of life.

Shows epidemic tendency and irregular periodicity.—Dr. L. F. Barker.

Gives rise to leukocytosis and anemia.

Causes acute inflammation of synovial and serous membranes.

Is likely to relapse.

Is amenable to salicylic acid and is believed to be due to a specific infection.

Is a blood-borne general infection, distributed throughout the entire body.

The removal by surgery of one lobe of a lung (pneumonectomy) or of an entire lung "has now become compatible with recovery." Respiratory function can be carried on when the lung capacity is reduced to one-sixth of its normal volume.

CANCER PAIN

The following prescription, for the relief of the cancer patient, as when the case is past all curative measures, is recommended by Dr. L. F. Barker:

Rx Scopalamin hydrobromati 0.0025
Morphine Muriate 0.2
Dionin 0.4
Aqua Dest. qs.....10.

The dose is 5 to 7 minims by hypo and a night and morning dose will usually suffice. This is called Schlesinger's solution.

The Melting Pot

¶ For the first time in the state of Washington the medical profession acting as an organization has made its influence felt in a political campaign.—Ill. Med. Jr.

✣ ✣ ✣

¶ Some one has suggested that medical schools also prepare doctors for locations of crying need.

✣ ✣ ✣

¶ The most important remedy is thyroid extract because the thyroid exercises a regulation action upon the entire endocrine system Joined with it should be the glandular extracts suited to counteract the various individual symptoms.—Le Jr. Med. Francais, in Ill. Med. Jr.

✣ ✣ ✣

¶ An abundant vitamin requirement is a very important factor to bear in mind in studying etiology, diagosis and treatment, and preventive medicine.—A. D. Emmett in Ills. Med. Jr.

✣ ✣ ✣

¶ The public is very much in need of enlightenment as to the accomplishments of scientific medicine. Some of the State Medical Societies are undertaking a plan of publicity. Speed the day when others will. Verily, when all will.

✣ ✣ ✣

¶ The establishing of a single standard for the practice of medicine and limiting the encroachments upon legitimate private medical practice by government agencies are the two most urgent needs of the hour.—E. H. Ochsner, Ills. Med. Jr.

✣ ✣ ✣

¶ Cupid is ravaging the nursing forces of the hospitals to a tremendous extent. In one hospital in New York, statistics show that five years after the nurses graduate 57 per cent are married; in ten years, 85 per cent are married. One-fifth of the high school girl graduates are needed now.—Dr. E. M. Stanton in Ills. Med. Jr.

✣ ✣ ✣

¶ In the last ten years hospitals have increased the cost for the best hospital service in a surgical case from $39.50 to $134. "This is four times greater than can be excused on the plea of the general increase of the cost of living."—Dr. E. M. Stanton, Ills. Med. Jr.

✣ ✣ ✣

¶ Public Clinics should be kept within the bounds of absolute necessity.—Dr. M. H. Champion, Ills. Med. Jr.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald and Electro-Therapist

Incorporating the Kansas City Medical Index-Lancet

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The Editors' Forum

MORE MISCELLANEOUS MORON MENTION

HE responses of the feeble minded are in some respects like those of children of lesser years, and hence in practical classiations these defectives are often rated in ms of the ages of normal children. A detive person whose responses when meased or estimated by some standard are found be like those of a normal child of six years, then said to have a "mental age" of six, and lements of Scientific Psychology, Dunlap. 22) defectives who are chronologically 16 ars or over and who have "mental ages" beeen 8 and 12 are commonly called morons; ose having "mental ages" of 2 or less are ssed as idiots.

Further, Dunlap states that morons have en described as able to earn their living unr favorable circumstances but not able to anage their social and economic affairs witht direction and assistance. Imbeciles are scribed as able to carry out only the simest tasks, and then only under constant pervision. Idiots can do little more than lk and feed themselves. Binet and Simon ss idiots as unable to talk, imbeciles unle to learn to read and write, and morons as able to think (effectively).

By means of the Binet-Simon test of mental velopment the mental age of children can determined. (Dis. of Child, Sheffield, 1922, 763). Thus the feeble minded are classed follows: "Idiot" of the mental age of one d two years, technically, cannot talk. "Imbecile" corresponds to the mental age of three, four, five, six and seven years; the imbecile understands spoken language and talks fairly well. "Moron" corresponds to the mental age of eight, nine, ten and eleven years; is capable of learning to read and write.

What can be done for them is a big question. "The training is always to be taken into account and that, in the case of children, great skill and understanding of child psychology are required of one who should administer the tests with success. In relatively few cases are the proximate causes of mental deficiency known. In some cases the secretion of the thyroid gland is insufficient. In some cases there are definite brain defects. In still other cases adenoids are the immediate cause of the defect. Defects of hearing and of vision are frequent causes of mental deficiency because they prevent learning. But in the great majority of cases the senses are normally efficient, and there is no defect in structure or function of the nervous system or of the glands which can be shown in physical examination. Yet the nervous system, in such cases, obviously does not function properly." —Duncan.

"The neural troubles of the mentally defective may therefore be summed up as defects of integration. The defects are apparently hereditary, following the same laws of transmission from parents to children as do eye-color, teeth and other physical characteristics. The defects are incurable, and hence those who are definitely feeble-minded should not be allowed to propagate their kind. The individuals themselves may be helped by special care and training, but this does not raise their intelligence although it may unfortunately enable them to marry and beget children."

Addendum

In the daily press of November 14, 1922, there was reported from Los Angeles the case of Elizabeth Benson, age 8 years, by the family register, but by mental test she is 18 years old. If you doubt it listen. She says:

"I agree with Prof. Lathrop Stoddard, parentage has everything to do with the offspring's mental caliber. Environment has little to do with it. The environmentalists have proved wrong."

She started to school at four. "Study simply comes easy. I really enjoy arithmetic. I like French."

Hotel Lyndon, Thirty-first and Troost Avenue, Kansas City, offers accommodations to doctors visiting the city during the meeting of the Electrotherapeutic Association—rooms with or without bath; rates from $1.50 to $4.00. Make reservations early.

FAULTY FOOD IN RELATION TO GASTRO-INTESTINAL DISORDER

THE THESIS is propounded by Robert McCarrison, London, England (Journal A. M. A., January 7, 1922), that much of the gastro-intestinal disorder of civilized peoples of the present day is due to faulty food.

In the Journal A. M. A., January 7, he presents evidence of the incidence of such disorder among civilized communities and of its comparative absence among certain races living under more natural conditions; and contrasts, in general terms, the food habits of the former with those of the latter. He refers to the special relation of perfect food to the functional perfection of the gastro-intestinal tract; and from these sources advances presumptive evidence of the effects of faulty food in impairing the functional perfection of the digestive system. Experimental evidence of these effects is given, and attention directed to the applicability of the experimental results to the genesis of certain acute and chronic gastro-intestinal disorders. McCarrison asserts that faulty foods capable of causing similar effects in man to those produced experimentally in animals are widely made use of at the present day. In guarding the national health, McCarrison says physicians have three obvious duties. The first, to instruct the masses as to what to eat and why they eat it; the second, to apply the results of science to the production of natural foods in abundance and to their widespread and cheap distribution, rather than to the erection of institutions for the treatment of maladies due to their want; the third, and most important, ardently to pursue investigations and the acquirement of knowledge.

CONCERNING THE NARCOTIC SITUATION

The American Medical Editors' Association at their annual convention in Cleveland adopted a resolution that a real Congressional investigation of the narcotic problem be had "to clear up the real issue behind this whole mess."

The National Association of Retail Druggists in their annual convention, Detroit, 1922, adopted resolutions that they postpone action upon any suggested Model State Narcotic Law pending a comprehensive unbiased and fearless investigation of the narcotic drug situation.

The New York Pharmaceutical conference, a delegate body representing twenty local pharmaceutical associations of New York city and vicinity, at its regular meeting resolved that they disapproved of the effort recently made by the committee on narcotic drugs of the council on Health and Public Instruction of the A. M. A. to secure pharmaceutical endorsement of a so-called "Model" state narcotic law while so many problems relating to the medical treatment of drug addiction are in dispute, and strongly opposes the adoption of any "model" narcotic law, pending a thorough investigation of the entire narcotic drug situation including the present bureaucratic method of administering the Harrison Law.

Note: The above is a remarkable presentation of the real facts in the narcotic situation. The present data of record which cannot be impugned. Why have the medical journals of the country kept us in ignorance of these things until the subject matter spread over the entire country and a druggist's journal had to expose the facts in order to save the profession and the public from the menace.—Editorial in Illinois Med. Jr.

It is clear that the Harrison Narcotic Law as enforced has failed of its purpose.—Ed. Ills. Med. Jr.

CONSTIPATION

CAN anything new be said on the subject? Are there any new styles? No, they are still wearing 'em tight.

Well, I have a few things to harrow up your soul, and would a tale unfold, if I may be so bold.

I am not going to begin with Sampson and his jawbone of an ass which slew thousands, and therefore your jawbone—you know all that.

And I am not going to state that countless people dig their graves with their teeth—you know that.

And I am not going to say that the average constipated American eats too much—you all know that.

I am not going to substitute the fence corner for the modern toilet—you all have tried that.

I am not going to say an apple a day—you've heard that.

I shall not mention Pluto or AbilenA—they speak for themselves.

I shall not mention the vicious circle of the rectum and autoinfection and all 'n'ev'rything.

Neither shall I explain about the lack of food and fodder and the frequent fizzles.

It is unnecessary to advise you further about yeast, and fig paste and determined salts—you have that all down.

And the sedentary habits and "union" hours—you have that.

And the internal bath—you've had that ambition.

And all kinds of oil—you've found them pretty slick.

Absent treatment—you've tried that.

And the christian science "movement"—if ny.

So that now having got that out of my sys-em we come to the discourse of the evening —what is the best treatment for constipation? The answer is found in Hezekiah 7:11: Whatsoever you eat, eat not to your own con-emnation."

Food, then—right food—that is the answer. All constipation can be corrected by the ight diet. Why this dicta? They diet and ry it and at the first new ad they buy it!

H. N. J.

NATIONAL MUSEUM REPORTS NEW AND VALUABLE ACCESSIONS

The secretary of the Smithsonian Institution, in his ecently issued annual report for the year ending une 30, 1923, gives a prominent place and favorable ention to the collections of South American insects eceived by the United States National Museum and the group of rare and interesting live specimens of outh American birds and mammals, donated to the ational Zoological Park, through Dr. Mann, an as-ociate of Dr. H. H. Rusby in his recent South Amer-an journey. "The collections of living animals made y Dr. Wm. M. Mann on the Mulford Biological Ex-loration of the Amazon Basin reached the park on pril 15, 1922. Included were 15 mammals, 50 birds, nd 17 reptiles that arrived in perfect condition, and a ery few others lost from the effects of travel. These ere all generously presented to the park by the H. . Mulford Co., of Philadelphia. Doctor Mann is to e congratulated on his success in bringing to the ountry live representatives of several species from olivia and western Brazil that have never before een shown. The red-faced spider monkey, black-eaded wooly monkey, pale capuchin, choliba screech wl, Bolivian penelope, short-tailed parrot, Maxi-ilian's parrot, blue-headed parrot, Cassin's macaw, olden-crowned paroquet. Weddell's paroquet range-winged paroquet, and golden-winged paroquet re new to the collection. These and other rarities e mostly from the Rio Beni, Bolivia, and the upper io Madeira, Brazil, localities from which animals eldom find their way into collections. Other species, ncluding such rare birds as the festive parrot, Ama-onian caique, and white-backed trumpeter, while not ew to the park records, are unusual. There were lso some showy birds and small mammals from the ower Amazon as well as an excellent collection of ving reptiles. On account of the great proportion of are species it contained and the unusually good con-itions of the specimens on arrival, the Mulford Ex-loration collection easily ranks as the most import-nt accession received from tropical America in some ears. Another outstanding feature among the year's ccessions was the collection of about 100,000 insects f all orders, which Dr. Mann brought back from outh America, especially eastern Bolivia.

MAY THEY INCREASE

Some people have made a decided success in life by tending to their own business.

Members of the Western Electrotherapeutic Associ-ion, assembling in Kansas City, April 16 to 20, are nvited to make their headquarters at Hotel Bellerive, ansas City's newest and finest family hotel, located n Armour and Warwick boulevards. A beautifully rnished room with bath (for two people) twin beds, 5.00 per day; ten minutes' walk from the Little heater. Reservations should be made without delay. ee adv., page 74.

KANSAS CITY CLINICAL SOCIETY

AN ASSOCIATION of physicians and surgeons has recently been organized in Kansas City to be known as the "Kansas City Clinical Society," the purpose and plans of which are well set forth in the following editorial published in the "Kansas City Star" on Saturday evening, January 20th:

From Kansas City Star, Jan. 20, 1923.

BROADER SERVICE FOR MEDICAL RESOURCES

The clinical and hospital facilities of Kansas City have never been capitalized at their full worth. They can be made a genuine asset of the medical profession in a large section of the Southwest. To make them no less than that is the purpose of the Kansas City Academy of Medicine through the recently organized Kansas City Clinical Society. The academy is composed of physicians and surgeons who have made some individual contribution to medical science and who have established their competence in the profession. It is, therefore, fitted for its present undertaking.

What is aimed at is placing at the disposal of medical practitioners of this section of the country the wide variety of clinics that are held daily in Kansas City. The academy will link up these clinics through daily listing, and thus be in position to inform physicians in and out of the city as to the program at any particular hospital or other institution. It will form an intermediate agency between the members of the medical profession in this territory and the valuable sources of assistance which heretofore have not been properly utilized, just for lack of such an agency of information and encouragement.

Commendable attempts previously have been made to do in Kansas City something very like what the academy now proposes. This work is now to be systematically developed. It is not expected that full results will be attained at once; there are preparations for years of work. The clinical conference arranged for next October ought to give material impetus to the undertaking. The Medical Association of the Southwest will meet in Kansas City at the time of the conference; and before that time several thousand physicians of this territory will have been acquainted with the plans of the academy or will have come into direct contact with the clinics here.

In its further plans to bring to Kansas City medical authorities of national reputation, the academy will perform a service to the public of the city and territory as well as the physicians. The entire cause is worthy of the persistent effort and devotion which members of the academy are prepared to give it.

The officers and executive committee of the society are as follows:

President, Dr. E. H. Skinner.
Vice-President, Dr. L. F. Barney.
Secretary, Dr. James R. McVay.
Treasurer, Dr. Joseph W. Kimberlin.
Executive Committee: Dr. Jabez N. Jackson, Dr. William J. Frick, Dr. Howard Hill, Dr. F. D. Dickson and Dr. C. B. Francisco.

THE AMERICAN CONGRESS ON INTERNAL MEDICINE

The Seventh Annual Clinical session of the American Congress on Internal Medicine will be held in the amphitheatres, wards and laboratories of the various institutions concerned with medical teaching at Philadelphia, Pa., beginning Monday, April 2nd, 1923.

Practitioners and laboratory workers interested in the progress of scientific, clinical and research medicine are invited to take advantage of the opportunities afforded by this session.

Address inquiries to Frank Smithies, Sec'y-Gen'l, 1002 N. Dearborn St., Chicago, Ill.

SYDNEY R. MILLER, President.
Baltimore, Md.

Correspondence

OUT IN CALIFORNIA

Santa Ana, Calif., Feb. 5, 1923.

Dear Doctor Fassett:

I am handing you herewith check for my dues in the Medical Society of the Missouri Valley, as I intend to keep my membership in the association with which I have so long been identified. I wish also to receive the Medical Herald regularly, in order to keep in touch with medical matters in the Middle West. I find a great many friends in California, and quite a number from Omaha. Dr. J. H. Cleaver, formerly of Council Bluffs, is practicing in Los Angeles, as well as Dr. D. C. Bryant of Omaha. Dr. Bryant has gone to South America for a three months' trip and will attend the American College of Surgeons. Dr. John Punton of Kansas City, called on me the other day, and has promised to bring his wife and make us a visit at my home in Santa Ana. Out here they are just beginning to recognize epidemic "Encephalitis", and I have recently seen several cases in consultation. I may send you an article later on.

Yours very cordially,
F. E. COULTER, M. D.

INCOME TAX FACTS

The revenue act of 1921 provides that an income tax return shall be filed by every person, married or single, whose gross income for the year 1822 was $5,000 or more. Broadly speaking, gross income includes all income received by the taxpayer during the year from salary or wages, or from "business, trade, profession or vocation," dealing upon which the tax is assessed, is gross income less certain specified deductions for business expenses, losses, bad debt, taxes, contributions, etc.

A professional man, doctor or lawyer, may claim as deductions the cost of supplies used in the practice of his profession, expenses paid in the operation and repair of an automobile used in making professional calls; dues and expenses attending meetings of societies; subscriptions to professional journals; office rent; and the cost of fuel, light, heat and water used in his office, and the hire of assistants.

AMERICAN MEDICAL ASSOCIATION

The annual session will be held in San Francisco, June 25 to 27, under the presidency of Dr. Ray Lyman Wilbur, president Stanford University. The general chairman, Dr. W. O. Musgrave, has announced diagnostic clinics to be held in San Francisco and Oakland, June 24 and 25, and in Los Angeles on July 2 and 3. The railroads are arranging to run special trains for the convenience of those wishing to attend the convention. In this issue will be found two announcements of special service:

The Missouri Pacific Railway will run a special from St. Louis and Kansas City, in connection with the D. & R. G. W. and Western Pacific, by way of Royal Gorge, Salt Lake City, and the Feather River Canyon.

The Santa Fe Railway will run a special train starting from Chicago and passing through Kansas City, Grand Canyon, Colorado Springs, with stopovers, if desired. The fare from Kansas City will be $72.00 round trip to San Francisco, returning by different route, if preferred. Further information in our next issue.

The Doctors' Librar

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

HIGH FREQUENCY PRACTICE FOR PRACTITIONERS AND STUDENTS, BY BURTON BAKER GROVER, M. D.

Author of Handbook of Electrotherapy; ex-president of the Western Electrotherapeutic Association, 1919-1920; Fellow of the American Electrotherapeutic Association; the American Medical Association, Medical Society of the Missouri Valley and the Colorado Medical Society. Published by The Electron Press, 1922, Kansas City, Mo., U. S. A. Price $4.00. The book is well bound and abounds in engravings making the text exceedingly clear in all details and putting the whole subject so plainly before the reader that there is no difficulty in following the author.

Chapter 1. This chapter will stand the scrutiny of the physicists and please and educate the medical enquirer. It is an exceedingly interesting and practical dissertation upon the subject of electricity.

Chapter 2 is devoted to the mechanical, on construction of apparatus, which is usually so dry and uninteresting that it is never read, but the author has made it read like a novel.

Chapter 3 on Medical Diathermy, would be difficult to improve upon. The facts are set forth in a readable way and are so plain that any physician can grasp the whole truth of the matter.

Chapter 4. In this chapter surgical diathermy is demonstrated in a beautiful manner and made so plain that any one can follow the author without any trouble.

Chapter 5. "Blood Pressure"—is the most wonderful chapter in the whole book. Something entirely new in high frequency practice. The elucidation of this subject by the author and his many tables of reference and comparisons make it invaluable to any physician.

Chapter 7. "High Frequency Therapy"—deals in a most voluminous and practical way upon all manner of applications of high frequency in the treatment of disease. The spinal charts of nerve centers are exceedingly valuable and illustrations of applications set forth the work in a splendid manner.

Chapter 8. Another new feature of this work is given in this chapter in which the use of high frequency, especially in diseases of the eye, is set forth in a splendid way, showing very plainly the benefit that can be derived from this agency in many pathological conditions of the eye. The author shows in this work the absolute familiarity obtained only by long and constant experience with these measures.

Taken as a whole, this book may be confidently recommended to every physician who wishes to keep up-to-date in his work. J. D. GIBSON, M. D.

PRINCIPLES AND PRACTICE OF INFANT FEEDING

By Julius H. Hess, M. D., Professor and Head of Department of Pediatrics, University of Illinois College of Medicine; Chief of Pediatric Staff, Cook County Hospital. Illustrated. Third Edition, revised and enlarged, 495 pages, cloth. F. A. Davis Company, Philadelphia. 1922. Price, $4.00, net.

In this third edition the chapter on vomiting, colic, flatulence, constipation, and abnormal stools have been rewritten, and new chapters on rickets, scurvy, spasmophilia, ecidosis and anemia have been written. The author develops his subject matter ground clinical cases, largely practical and at the same time has not made it too voluminous. This is a good book for nurses as well as doctors.—H. N. J.

Physio-Therapeutic Week in Kansas City, April 16-20

THE fifth annual meeting of the Western Electro-Therapeutic Association will be held in Kansas City, Mo., Thursday and Friday, April 19 and 20, ıder the presidency of Dr. T. Howard Plank of Chi-go. A cordial invitation is extended to the medical ofession.

Preliminary program:

President's address, Dr. T. Howard Plank, Chicago.

High Frequency Currents, Dr. J. E. C. Wadding-n, Detroit.

Paper, title unannounced, Dr. H. H. Bowing, Roch-ter.

Actinic Ray Therapy in Surgical and Gynecological 'ork, Dr. A. Davis Willmoth, Louisville.

Demonstration Radiotherapeutic Technique, Dr. J. . Gibson, Denver.

Iliel Stasis and Restoration of Ileocecal Incompe-ncy (lantern slides), Dr. F. H. Morse, Boston.

Colitis; Causative Factors and Therapy, Dr. Curran ope, Louisville.

Physiotherapy, An Adjunct to Orthopedic Surgery, r. J. E. M. Thomson, Lincoln, Neb.

Blood Pressure Interpretation, Dr. B. B. Grover, olorado Springs.

High Frequency Currents (with demonstration), Dr.)mar T. Cruikshank, Pittsburgh.

Radium Therapy, Dr. Sanford Withers, Denver.

Paper, unannounced, Dr. E. H. Skinner, Kansas ity, Mo.

The Western School of Electro-Therapy will hold s fifth annual session, under the direction of Dr. B. Grover and associates, Monday, Tuesday and Vednesday, April 16, 17 and 18. On Wednesday eve-ing Dr. Pope will give a lecture on "Mendelian leredity" (color lantern slides).

An elaborate exhibit of physiotherapeutic apparatus ill be held in the lobby of the theater, and this feature lone will be worth a trip to Kansas City.

Clinics and demonstration of technique each after-oon and evening. For program address the secre-ary, Dr. Charles Wood Fassett, 115 East Thirty-irst street, Kansas City, Mo.

KANSAS CITY ACADEMY OF MEDICINE BANQUET

The Annual Banquet of the Kansas City Academy f Medicine was by all means the most enjoyable medi-al feast indulged in by that body for a decade. It vas staged in the Hotel Baltimore with a feast pre-ented to the fellows. Dr. E. H. Skinner as master f ceremonies, was at once jester, chorister, clown and oastmaster. Everybody sang—everybody laughed, verybody enjoyed the balloon, rattle and horn be-ween songs and courses. Not another of its kind com-)etes with this for general good feeling and compan-onship.

Following the informality of the dinner, the guest)f the evening, Dr. A. D. Dunn, of Omaha, Neb., was ntroduced to speak on "Some problems connected vith the Lyons-Meltzer non-surgical biliary drainage". Dr. Dunn has completed some careful clinical and ex-)erimental work on this new phase of duodenal study.

In a brief review of the history, he explained how the nethod of non-surgical biliary drainage had sprung into prominence, but it was based on the assumption that there were secured by the duodenal tube three types of bile: "A" bile from the common duct; "B," bile from the gallbladder, and "C", bile from the higher biliary tracts.

He instanced cases from his experience to prove that "B" bile could be secured when the gallbladder was removed, when it was full of stones, or when the cystic duct was completely stenosed or plugged. He recalled how difficult it would be to get bacteriologic cultures from "B" bile, when it is impossible to disinfect the mouth and throat through which the tube must pass. He referred to his study of cholesterol content of bile and could draw no conclusion to point to the value of the studies in looking to a diagnosis of gallbladder disease.

On a basis of diagnosis, therefore, he felt the gradations of colors, the bacteriology, the cellular study or even the cholesterol content did not prove, in his hands as valuable criteria as were the claims made by the proponents of the method.

Concerning treatment by this method, he discussed the use of magnesium and calomel used for scores of years as a cholegogue. His experiments did not lead him to believe that the introduction of magnesium sulphate through a duodenal tube was any more effective than when given orally. Furthermore, he considered that even if the method were of service in draining the gallbladder, microscopic sections show that the pathology of biliary infections was frequently, even usually, in the gallbladder wall, and throughout the liver tissue—much deeper than the treatment could reach. He referred to the possible benefits that might accrue from the method of treatment—removal of bile pigment, cholesterol bilt salts, bacteria, products of protein metabolism, and, finally, the psychologic effect upon the patient. In his opinion, none of the first could be proven to be either more common or more efficient than by salt taken by mouth. Psychologically, however, it may be of service, but probably in no respect comparable to the amount of work and fees demanded to consummate a "course" of treatment. —Bulletin Jackson Co. Medical Society.

THE INTERSTATE SOCIETY OF RADIOLOGY AND PHYSIOTHERAPY

The Interstate Society of Radiology and Physiotherapy was organized at a banquet at the Hotel Fontenelle, Omaha, on December 16, 1923. A group of physicians who attended this gathering were deeply interested in matters pertaining to Radiologic and Physiotherapeutic methods. They realized that a society devoted to the dissemination of these matters, where the members could meet and mutually exchange experiences, results, etc., would be of inestimable value. Thus the new society had its beginning.

The purpose of this society "shall be to promote research and the dissemination of all knowledge pertaining to all Radiologic and Physiotherapeutic measures for the diagnosis and treatment of disease." Membership is limited to regular, licensed physicians, actively engaged in the practice of their profession. Meetings are annual. The next annual meeting will be held in Omaha, in September, 1923.

Dr. C. L. Mullins of Broken Bow, Nebr., was elected president; Dr. T. T. Harris of Omaha, Nebr., was elected vice president; Dr. Roland G. Breuer of Lincoln, Nebr., was elected secretary-treasurer. Councillors as follows: Nebraska: Dr. R. W. Fouts, Lord Lister Hospital, Omaha, Nebr.; Iowa: Dr. D. M. Ghrist, Ames; Utah: Dr. W. Scott Keyting, Salt Lake City; South Dakota: Dr. R. N. Wheeler, Hot Springs; Kansas: Dr. F. W. Shaffer, Pittsburg.

Membership blanks and further information may be obtained from the secretary.

MISSOURI STATE MEDICAL ASSOCIATION

The annual meeting will be held in Joplin, May 9, 10 and 11 under the presidency of Dr. A. R. McComas, Sturgeon.

A PHYSIOTHERAPEUTIC WEEK IN KANSAS CITY

At the Little Theater, April 16, 17, 18, 19, 20, 1923

WESTERN SCHOOL OF ELECTROTHERAPY

Fifth Session, April 16, 17, 18, 1923

CLINICS AND DEMONSTRATIONS EVERY AFTERNOON AND NIGHT

Instructors: Dr. B. B. Grover, Dr. Frederick H. Morse, Dr. T. Howard Plank, Dr. A. J. Pacini, Dr. J. D. Gibson, Dr. H. C. Bennett, Dr. Curran Pope, Dr. Lynn B. Greene.

Classes are now being formed. Number limited to those who register in advance.

Western Electrotherapeutic Association, Fifth Annual Meeting, April 19-20

Dr. T. Howard Plank, President. Essayists: Dr. B. B. Grover, Dr. Sanford Withers, Dr. E. H. Skinner, Dr. Clyde Donaldson, Dr. Curran Pope, Dr. H. H. Bowing, Dr. A. D. Willmoth, and others. The profession cordially invited to attend.

Send for programs and registration blank. Chas. Wood Fassett, M.D., Secretary, Kansas City, Mo.

WESTERN SCHOOL OF ELECTROTHERAPY PRELIMINARY PROGRAM

Monday, April 16, 1923—Morning Session

An entirely new method of teaching will be inaugurated at this session.

The Fundamental Laws governing Electric Currents. Electro-Physiology. Forms of Energy and its transformation. Classification of Electricity from an Electrotherapeutic standpoint. The different forms of Electric Currents and their Uses in Medicine. Electrolysis. Ionization. Ionic Medication, its importance and follies.

Monday—Afternoon Session

Indications for the use of **Direct** and Sinusoidal Currents. Clinical Demonstration of **Direct** and Surging Waves in Paralysis, Intestinal Stasis, etc. Technic of Constant and Sinusoidal Currents in Gynecology. Ionization in Infections. The entire session will be devoted to demonstrations on actual patients insofar as material is available.

Tuesday—Morning Session

The Fundamental Principles of High Frequency Currents. Types of Machines and their Function in Therapeutics; When, Where and How to employ them. Classified Physiology. Autocondensation Physiology and Therapy. Medical Diathermy; How employed to secure best results. The Advantages and Disadvantages of Surgical Diathermy. Desiccation and Electrocoagulation, When and Where indicated. Blood Pressure, etiology and physiology. Blood Pressure Reading. Sphygmomanometers, their importance in practice. Hypertension. Hypotension. Hyperpiesia. Blood Pressure Interpretation and its Importance to all Physicians.

To any physician who does or does not employ physical measures in his practice, the information presented at this session is worth many times the fee charged for the entire course.

Afternoon Session

Technical Demonstration of High Frequency Currents in Cardiovascular Diseases. Medical Diathermy, indications and contraindications. Importance of Electrodes. General Technic in adenitis, amennorhea, arthritis, bronchitis, pleurisy, pneumonia, bursitis cancer, diseases of the liver, fractures, goiter, diseases of the eye, ear, nose and throat, kidney dysfunction, lumbago, muscular atrophy, neuralgia, neuritis, infantile paralysis, etc.

Wednesday—Morning Session

Practical Roentgenotherapy. Technical demonstration in alopecia, eczema, favus, fibroids, goiter, tuberculosis and Deep Therapy in Cancer.

Afternoon Session

Clinical Demonstrations. Actinotherapy, When Where and How employed. Dermatological Clinic High Frequency Surgery. Desiccation in acne, angiomato, corneal ulcer, diseased eyelids, hemorrhoids, diseased tonsils, benign growth, etc. Electro coagulation in malignancy, its advantages and disadvantages; its technic of application. The electric scalpel.

Evening Session

Photo and Chromo Therapy. Special demonstration of apparatus and technic as desired by the class

Thursday—All Day

Program of The Western Electrotherapeutic Association.

Thursday—Evening Session

This session will be devoted to special papers requiring the use of lantern slides and moving pictures. Clinical demonstrations of the methods suggested by the papers presented during the day.

Friday—All Day

Association program.

All registrants of the school are urged to attend all sessions of the association and take part in the discussions.

Write for Annual Announcement containing full information and particulars.

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INFLUENZA

nfluenza seems most prevalent in many sections of s country, and in some places it is an epidemic.

'or many years Tongaline has been recognized as of the most effective and reliable remedial agents the treatment of this insidious disease. The use the salicylates is generally recognized as most effi- ious on account of their decided anti-microbic ac- n in the blood, hence Tongaline "prescribed where- r the salicylates are indicated", is most effective promptly and thoroughly relieving the distressing nptoms of the influenza, and what is more import- , it prevents the sequelae, always of a most seri- s character.

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ABILENA never causes the least suggestion of nausea, and its administration is never followed or accompanied by any distressing tenesmus: the patient invariably experiencing a heightened sense of comfort and buoyancy.

SUPER-CONCENTRATED DIPHTHERIA ANTITOXIN

Another advance in antitoxin production has been announced by H. K. Mulford Company, Philadelphia, aptly termed "pioneers" in the biological field, as practically all of the different antitoxins, serums, vaccines, etc., now in general use, were first produced commercially in the Mulford laboratories. This latest advance is a super-concentrated diphtheria antitoxin, the principal feature of which is that it permits the administration of diphtheria antitoxin in smaller volume than has heretofore been possible, with no increase in total solid or protein content. To convey some idea of the high concentration attained in this product, it may be said that the standard set by the Mulford laboratories for their 20,000 unit syringe calls for a potency of not less than 4,000 antitoxin units per cc. Physicians who have been in practice for some time will appreciate that this is a very long step from the early days of antitoxin, when plain serum was supplied and one-ounce bottles were used as containers. Next came the production of globulin by a precipitation process and now improved methods bring us a super-concentrated product. We congratulate the Mulford laboratories upon this announcement of further progress.

The Management of an Infant's Diet

Constipation

Protein indigestion or the failure to take care of the casein of cow's milk may result in delayed bowel movements.

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Mellin's Food Company, Boston, Mass.

A STANDARDIZED VITAMIN PRODUCT

For several years the Lilly Research Laboratories have been studying sources and the preparations of vitamins. The staff of chemists at work on this subject recognized the need for standardization of vitamin products, particularly if these new and important preparations were to take their rightful place in medicine. It was finally decided to adopt vitamin units for each vitamin and to state the number of such units on all Lilly vitamin products. It was at once apparent that the palatability of a product of this kind would have a direct influence on its popularity, more especially since the patients needing both A and B vitamins are often found among children. As stated on the label of each bottle Coco-Vitamin contains not less than 16 units of vitamin B and 240 units of vitamin A to each fluid ounce. The product is concentrated. One ounce equals the B vitamin content of ten ounces of milk and the A vitamin content of more than a pound of spinach or other green vegetable. The preparation is quite palatable and readily mixible with milk or water. It contains 40 per cent of vitamin tested cod liver oil—the pure Norwegian is used and is so well disguised that it is scarcely detectable. It contains 40 per cent of vitamin B extracts and 10 per cent of malt extract. It is more than a mere vitamin preparation; it is a nutritious tonic. Cod liver oil is said to have a high value in the prevention and treatment of rickets due to a fourth vitamin, D. Coco-Vitamin can therefore be said to be a prophylactic and specific treatment for this disease. Coco-Vitamin is made only by Eli Lilly and Company, Indianapolis. It is supplied in pint bottles. Literature and sample will be sent upon request.

BUTYN IN ENGLAND

Dr. W. M. Beaumont, of Bath, England, in a letter to the London Lancet, says: "The use of Butyn as a local anaesthetic appears to have aroused interest in more than one branch of surgery, as an alternative for cocaine. Further experience convinces me that it is something more than an alternative, for its action is superior in several respects. A comparison of Butyn with cocaine shows an advantage for the former in all respects. The desired effect is attained with a smaller quantity of the drug, with a quicker action, and more profound result. The accommodation is not paralyzed and consequently the pupil is not dilated. Butyn does not appear to have any toxic effect, and it is never injurious to the cornea. For the removal of foreign bodies from the cornea, a drop of 1 per cent solution almost immediately produces anaesthesia. For cataract operation a 2 per cent solution preceded by a tablet of adrenalin (0.0006 g.) is ideal. The absence of dilation of the pupil justifies its use in glaucoma as an analgesic in combination with eserine or pilocarpine. For glaucoma operations it can be safely used to produce local anaesthesia. In the treatment of keratitis, in which cocaine is liable to produce corneal exfoliation, Butyn can be instilled without anxiety. Operations on the muscles may be performed with infiltration anaesthesia, a 0.5 per cent solution being employed; 1 c. cm. of the solution is used or even more in these cases, and the reports from America are highly satisfactory. For cataract, operations and for iridectomy I have used a 2 per cent solution of Butyn in place of cocaine in 20 cases and have always been well satisfied with the action of the drug. In each case the instillation was preceded by a tablet of Adrenalin. For nose, throat ear and genito-urinary operations 2 per cent to 5 per cent solutions are recommended, according to the depth of the anaesthesia desired. The less toxic effects of Butyn compared with cocaine enable the surgeon to use it without fear in these cases. It can be sterilized by boiling without affecting its anaesthetic qualities. In dental surgery Butyn is extensively used in America, both for infiltration and conduction anaesthesia. Chlorides should not be used with Butyn as they cause the latter to crystallize out of solution. No toxic effects have been observed, either in experiments on animals or in the clinical use of Butyn. In conclusion, not only in ophthalmology but also in all other branches of surgery, the use of Butyn appears to be co-extensive with that of cocaine. If after weighing the two drugs in the scale of experience, it is found that we have a synthetic super-cocaine which renders the old and hitherto essential drug superfluous, our patriotic and social duty is obvious. For if medical science can banish cocaine from the pharmacopoeia, without loss to the healing art, a step will be taken towards the elimination of the drug-trafficker and the rescue of his victims."

THE BEST WAY OF APPLYING HEAT

To the body surface, for all purposes, is to utilize electricity, which now is supplied in towns and cities generally. For such applications, the Sterling Therapeutic Lamp is one of the best appliances on the market. With this lamp almost every degree of heat may be utilized, from the most intense to the mildest. The pain and stiffness secondary to localized congestion, involving either muscular or articular structures, frequently subside with such treatment. Results are excellent in lumbago, muscular rheumatism and recurrent neuralgias. So, too, may sprains, torticollis and kindred conditions be treated with good success. Some skin diseases, also yield to fairly high degrees of heat, intelligently applied, especially such as are indolent or of bactericidal origin, as lupus, erysipelas, sycosis, chronic eczema, acne and furunculosis. Anyone desiring information on therapeutics of light and heat should write the Sterling Therapeutic Lamp Company, 544 Garfield avenue, Department 22, Chicago, Ill.

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PITUITARY STANDARDIZATION

Why standardize gland extracts when only the glands of healthy animals are used, and when, moreover, a definite routine is employed in the manufacture of the extracts so that only certain soluble substances are present in the finished product? Are not the normal glands altogether normal? Do they not yield a definite percentage of active principle? The answer is that all animal glands are apt to vary in their content of active principle, since all are miniature laboratories engaged in meeting only the demands of the organism at the time. Pituitary extract, called Pituitrin by the discoverers, Parke, Davis & Co., is assayed by two methods, one of which indicates its pressor (arterial tonic) power, the other its effect upon uterine tissue (its oxytocic activity). Being used principally in obstetric practice, the oxytocic test is considered very important, although oxytocic activity could be very reasonably inferred from a demonstration of the action of the extract on the unstriped muscle of the arteries. Accuracy is absolutely essential in a drug so powerful and of such crucial importance as Pituitrin and for this reason both tests are applied.

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E NATURE AND TREATMENT OF BRONCHIAL ASTHMA

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S a basis for our consideration of asthma I should like to provide you with a view of its physiologic and anatomic backind.

irst, let me remind you of the development the present state of our knowledge of the s of hypersensitiveness, and second, let me ew the histologic anatomy of the musculaof the terminal bronchioli. With these fundamental sets of ideas, many of the ling features of asthma can be more readily erstood.

The Nature of Hypersensitiveness—Anaphylaxis—Allergy—Idiosyncrasy

ortly after the introduction of diphtheria toxin reports came in from various clinis of the occurrence of severe generalized arial eruptions following the employment ie serum. It was at first supposed that it due to the antitoxin but Von Pirquet and ck showed that it was due to the horse m. They also showed that it occurred only n the serum was introduced into the body nerally, i. e., subcutaneously or intravenly, not through the medium of the digestive t. These earlier investigators are also reisible for the demonstration that after an al dose of a foreign protein the tissues of animal body are permanently altered, and protein injected or scratched into the layers of the true skin will produce an urticarial wheel.

The work of Rosenau and Anderson closely followed these findings. They discovered that if horse serum is introduced in considerable quantity into the peritoneal sac of a guinea pig, no untoward symptoms result, but if after an incubation period of eight to twelve days, a very small amount of horse serum is again introduced into the peritoneum or the vein, the animal gives evidence of great distress, has marked dyspnoea and convulsions and usually dies. At autopsy the guinea pig's lungs are greatly distended, pale and tense and on histologic section the terminal bronchioles seem to be in spasm. Other animals will also have a reaction after the second dose of a protein but the symptoms and autopsy findings vary somewhat in different species; in the dog, for instance, the digestive tract and cardio-vascular system seem to be the point of the maximum intensity of the symptoms.

These phenomena were considered at the time to be of a nature exactly the opposite of immunity because whereas the injection of a toxic infectious substance will produce in certain cases, an increased power of the body to destroy it when later introduced, in these instances the previous introduction decreased the body's power of resistance. The condition was therefore named anaphylaxis. Later work has served to show that the mechanism of immunity and the mechanism of anaphylaxis are not so dissimilar as was once supposed. There is probably a true antigen-antibody reaction in anaphylaxis as well as in immunity.

It was found, to emphasize this point that, if before the second and poisonous dose of the serum is given, the animal receives intravenously a very small dose of serum, amounting to about 1:200,000 of the amount required for the production of anaphylactic shock, the later administration of the shock dose will fail of its usual effect. In the serum disease of man also the hyper-susceptible individual may to a certain extent be protected from the expected reaction (i. e., be disensitized), by the subcutane-

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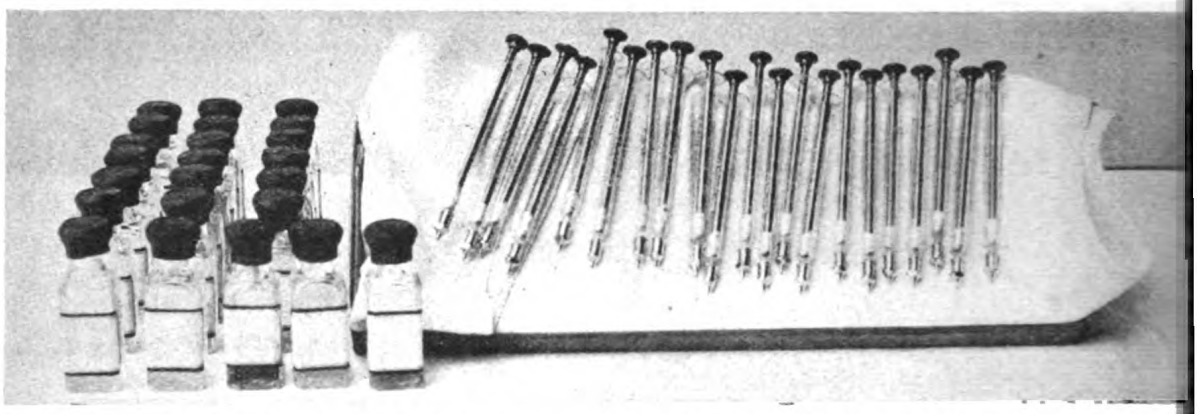


Fig. 1. Set-up for diagnostic cutaneous test. Intradermal method. Syringes to right, fresh from the steri lizer. Allergens in bottles to left. The syringes are loaded, twelve at a time, each with a different Allergen then the intradermal tests are made on the patient's arm with rapidity and ease.

ous or intravenous administration of small amounts of serum. The only explanation of such phenomena yet advanced is that this smaller amount of antigen unites with circulating antibodies and thus prevents the subsequent reaction.

Otto showed that sensitiveness can be transferred from one animal to another in the serum. Thus if guinea pig "A" receives an injection of horse serum, and a few days later is bled and blood serum injected into guinea pig "B," in twenty-four hours "B" will be in a state of anaphylactic hypersensitiveness and will react to the usual dose of serum necessary to produce anaphylactic shock. This hypersensitiveness can be transferred before the ordinary incubation period is ended; and it can be transferred even after pig "A" has been desensitized by minute doses of the serum. This passive sensitization does not last as long as the active sensitization. And the power to produce passive sensitization disappears from the actively sensitized animal long before its own sensitization has gone.

A further observation of Otto's is that actively sensitized females can transmit their hypersensitiveness to their young.

The explanations of these phenomena have been numerous. None of them is as yet very convincing. There is a general concensus of opinion that there is an antigen-antibody reaction present. One group of workers believe this to be of a chemical nature, that the primary injection produces a substance which unites with the second injection of the antigen to form a poisonous product. Another theory has been that the reaction is physical in character, the poison being elaborated by "the cleavage of serum proteins (and proteoses) through the pepton stage by a non-specific proteose. A third general group of ideas has centered in the belief that the process differs from immunity in that the immunologic processes tak place in the blood stream while the anaphylac tic phenomena take place in the fixed bod cells. Vaughn and Wheeler state the theor thus: "When a foreign protein is introduce into the blood or tissues it stimulates certai body cells to elaborate the specific ferment which will digest that specific protein. Whe this protein first comes in contact with th body cells the latter are unprepared to diges the former, but this function is gradually ac quired. The protein contained in the first in jection is slowly digested and no ill effects ar observable. When subsequent injections of th same protein are made the cells prepared b the first injection pour out the specific ferment more promptly and the results are determine by the rapidity with which digestion take place. The poisonous group in the molecul may be set free rapidly and in amounts suffi cient to produce symptoms or to kill the an imal."

It has been a very short step from the knowl edge of these anaphylactic phenomena to th comparison of them with certain clinical condi tions. Hay-fever was early seen to be a sensi tization of the organism to vegetable proteins Certain forms of skin eruption—urticaria an primrose dermatitis—fall in the same category Finally Schloss and Talbot showed that in in fants certain foods even of the commonest sor such as milk and eggs, could cause symptom such as asthma, urticaria, etc., when no partic lar digestive disturbance was present, and that following the idea of von Pirquet and Schick these idiocyncrasies could be predicted an diagnosed in a given individual by the injec tion or vaccination of these into the skin.

These conditions were at first all grouped under the general name of anaphylaxis. But it was soon pointed out that the natural state of hypersensitiveness were somewhat differen

the acquired conditon. A most important ference consisted in the fact that there was them no first introduction of the protein to ich the individual is sensitive. The sensi- eness was manifest at the first application. was supposed that in all these cases the first roduction had been made some time before time symptoms were manifested. But in tain cases, for instance in serum disease, the vious subcutaneous injection of horse serum ld manifestly never have taken place. Other erences were pointed out in the two condi- ns and the name **Allergy** given to the hyper- sitiveness observed in man as a natural (not uired) phenomenon. This includes hay- er, urticaria, dermatitis venenata, food aller- s, drug idiosyncracies and serum disease.

n important feature of allergy is that it is editary, transmitted both in the male and male line. This is easily observed in hay- er—almost invariably it being demonstrable ather and children or mother and chidlren he same family. Furthermore the general te of allergy may be transmitted. It is not ommon for an individual to be sensitive to substance and later develop sensitiveness quite another. For instance in hay-fever, ients may find that they develop asthma ing the hay-fever season when they eat ne particular fruit. Allergy differs from an- aylaxis in the fact that it is not possible to nsmit sensitiveness in the serum from one mal to another. (Some isolated observa- ns would seem to contradict this statement, they have not been confirmed.) Attempts transfer allergy from one human being to ther have never been made so far as I am are.

y making extracts of the protein to which patient is sensitive, and giving them hypo- mically in gradually increasing dosage, like accine, will in most cases, to some extent, se desensitization. Hay-fever may with sonable success be prevented in this way in ut 80 per cent of patients.

t appears universal and of considerable ctical interest that the reactions of allergy ur in the fixed cells of the body. Racke- an considers this to be the fundamental dif- nce between allergy and immunity. In im- nity the reactions occur in the circulating od. In hay-fever, for instance, the cells of conjunctiva, the nasal mucosa and, when ma intervenes, the unstriped muscle cells the bronchioli are involved. The work of ckenzie and Baldwin in hay-fever tends to w that if the pollen extract to which the ient is sensitive be injected into the skin at t a marked reaction occurs, but if it be rein- ed again and again in the same spot the ction disappears at that point though it may still remain in other portions of the skin sur- face. The fundamental nature of asthma, I be- lieve, to be a hypersensitiveness of the un- striped muscle cells of the terminal bronchioli.

The Musculature of the Bronchi—In the tra- chea and larger bronchi there are some un- striped muscle fibres, but the concentric car- tilaginous rings prevent complete collapse of their lumina. In the smaller bronchi the car- tilage gradually disappears until when we reach the terminal bronchiale it has entirely gone, its place being taken by elastic tissue. The muscle fibres in the cartilaginous bronchioli were first described by Reisseisen as being at- tached to the bronchial cartilages and spread- ing out between the spaces; where the cartil- ages terminated, however, the muscle did not but could be followed "in the lungs of an adult robust man as far as it was possible to open a bronchial tube with a scalpel." Various sub- sequent investigators have given somewhat contradictory descriptions of this muscle. Sap- pey considers the muscle layer to be continuous over the bronchioli, much like the muscular layer of the intestinal wall. Dubreuil and La- marque as well as Toldt considered it to be a network. Toldt called it a lattice work. Dub- reuil and Lamarque consider that the muscle forms a plexiform sphincter around the alveo- lar canal and that it extends into the walls of the air sacs.

W. S. Miller, who has added so much to our knowledge of the anatomy of the lung, has re- cently reviewed the subject and made dissec- tions upon the lung of the guinea pig, the dog and man. It is worth noting that he states that the "lung of the guinea pig contains pro- portionately a larger amount of smooth muscle than of any other animal I have studied": a significant statement in view of the marked lung reaction of the guinea pig in anaphylactic shock. The musculature of all three animals, Miller found to be much similar in that it formed a network of geodesic bands. In none did it form a continuous sheet or circular band. The arrangement is such as "to prevent any tangential motion and in this way provide for the greatest amount of strength and at the same time permit the greatest amount of ex- tension and contraction of the bronchioli and then subsequent divisions." The muscle bands form a sphincter around the openings of the air sacs, but no muscle bands are found in the al- veoli proper. "The muscle belongs to the air tube and not to the alveolus." Miller believes also that the action of the bronchial muscula- ture in expiration is active rather than passive.

The innervation of these muscle fibres we know largely by implication from pharmacolo- gic experiment. They are, of course, under the control of the involuntary or vegetative nerv-

ous system. The cerebral, or vagus, sends some fibres and in accordance with the rule of double innervation of the organs under control of the vegetative nervous system, the sympathetic does also.

Stimulation of the vagus causes a contraction of the bronchial muscles. But the proposition put forward by certain authors of considering asthma as an expression of vagus stimulation or vagatonia, breaks down when we remember the experiments of Auer and Lewis who found anaphylactic shock with the characteristic lung findings could be produced in the guinea pig even after section of the vagus. It is possible, however, to produce bronchial spasm by vagus stimulation; and this probably accounts for certain cases of asthma due to nasal, laryngeal and tracheal disease or pressure. Von Schotter, Jr., produced an asthmatic paroxysm in a patient while making a laryngeal examination. In very sensitive individuals faradization of the nasal mucosa will induce a paroxysm.

The action of atropine will relax an asthmatic attack, but requires rather large dosage in most cases. Epinephrin acts more certainly and more promptly. Atropine, as we have seen, has the action of a general paralysant to the antonomic nervous system and thus of the vagus. Epinephrin stimulates the sympathetic. From its prompt action in asthma we deduce that the sympathetic innervates dilator fibres in the bronchial musculature. The weaker action of atropine is explained by supposing that in allergic asthma the spasm of the muscles is caused by the hypersensitiveness of the muscle fibres themselves, not to vagus stimulation.

Pathology of Asthma—There is a general tradition among medical men that asthma never causes death and that, for this reason, the pathology of the disease is unknown. As a matter of fact there are a number of cases of death with autopsy now on record. Boughton has reported the case of a man who died during an asthmatic attack induced by the injection of a small amount of horse serum given for the purpose of desensitizing him previous to an injection of a therapeutic serum. He died in forty-five minutes and at autopsy his lungs were found dilated and the bronchioli on section were contracted much like the lung of a guinea pig in anaphylactic shock. The dose of horse serum he received was one minum. He had had asthma when near horses all his life. Kamchorn and Ellis have reported the autopsy upon a man who had asthma all his life and died of intercurrent cardiac disease. There were no permanent changes in the lungs or bronchi to account for the asthma. In other words, the case is confirmatory of the supposition that asthma is due to a temporary condition (spasm).

The Treatment of Asthma

Treatment of the Acute Attack—Epinephrin is our most valuable drug for any attack of asthma, due to whatever cause. It should be given intramuscularly or intravenously. It is sometimes advised to give it on the tongue and allow it to be absorbed there, but this method or any per oral administration is seldom effective. I agree with Hurst who says that the one time when it is permissible to teach a patient to use a hypodermic syringe is in the case of an asthmatic who should be taught to give himself an intramuscular injection of epinephrin and to have his syringe and solution ready at his bedside. An intramuscular injection is nearly as effective as an intravenous one as the small venules in the muscle take up the solution much as if it were in a vein. The dose of the epinephrin solution must be determined by the experience of the patient and the severity of the attack. If the patient is not susceptible doses up to 20 or 30 minus (1.5 to 2. c.c.) can be given. The average dose is 10 minims to 15 minims (about 1. c.c.). The only disadvantage of epinephrin is the short duration of its effects. However, it can be given repeatedlywithin reasonable limits. Hoxie and Morris have reported a case of death due to prolonged adrenalin administration, but in this case the drug had been administered in enormous doses daily to the amount of 7 c.c. for six years, and the evidence in the case is complicated by the presence of asthma and the use of chloroform and morphine in small amounts; however, deprived of the adrenalin the patient develops a cyanosis of the lips and fingers.

Morphine and atropine are in combination nearly always an effective remedy. Benzyl benzoate and benzyl succinanide have been very useful and efficient in my experience, and have the advantage of the possibility of oral administration. They are not always certain to relieve the spasm.

The burning of asthma powders and smoking of asthma cigarettes is an old and not very effective remedy. Stramonium and belladonna leaves are the base ingredients of such powders. A formula that may be used is:

℞. Stramonium folorius ..... 5 i-iv
Anisi fructus .....
Potassii nitratis .....aa 5 ii-ii
Tabacci foliorum .....gr v

Treatment of the chronic underlying condition in asthma depends upon the determination of the cause. The classification which I submit is based upon my experience with asthma in hospital, dispensary and private practice during the last four years.

1. **Asthma Due to Organic Causes**—Mediinal growths, particularly aneurism, may by essure on the trachea cause typical attacks bronchial asthma.

I shall not soon forget a case I saw while I as serving my internship at the Augustana ospital, Chicago, in 1908. One hot summer ght a man was brought to the hospital in an ute attack of asthma. He had never had such attack before. He had been out walking ith his wife, when he was suddenly attacked ith the asthmatic paroxysm. With a dose of orphine and atropine he was relieved, and, ough urged to enter the hospital as a patient, refused. Several days later he returned, ill suffering with his asthma and remained the hospital five days. I was called to see m in the middle of the night. He had fallen the floor of his room, with a hemorrhage om his throat and when I reached him was ad. At autopsy an aneurysm of the transrse arch of the aorta had constricted it so at it was no larger than the diameter of a silr dollar.

Thymic asthma has long been known in chilren due to a large persistent thymus. The eatment by X-ray of the chest is very satisctory.

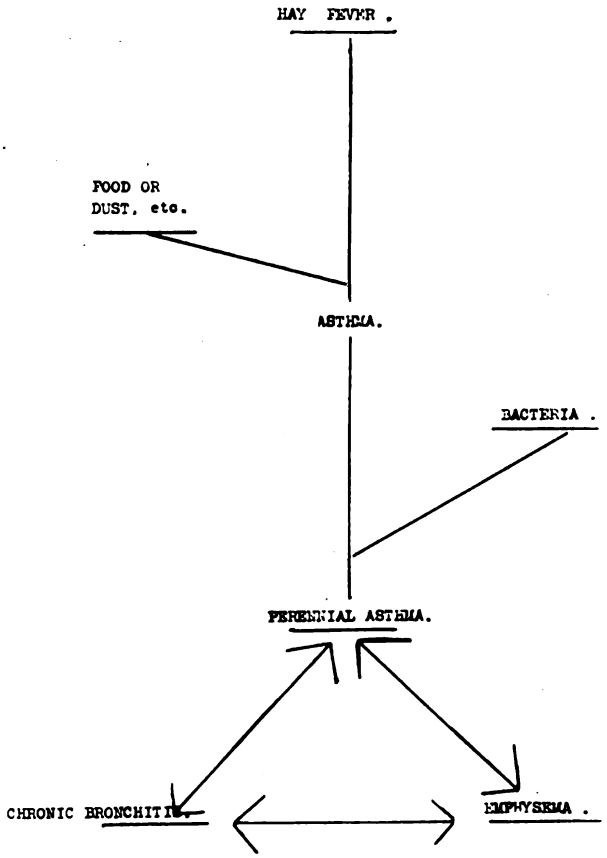
II. **Reflex Asthma**—Asthma unquestionbly can arise from obstruction in the nose, articularly with extensive sinus infection. The atient is usually allergic besides. Radical asal surgery is indicated with the use of vacnes made from the nose. Most of these cases re relieved though not immediately after opertion.

III. **Allergic Asthma: A. Due to Pollens**—he asthma of hay-fever is one of the most freuent forms. With carefully done cutaneous sts to determine the exact pollens responsible nd administration of extracts of the native polen, beginning several months before the exected attack the asthma and much of the acompanying hay-fever may be avoided in 80 er cent of the cases.

In the middle states the commonest causes f fall hay-fever are ragweed, horseweed, pigeed and iva ciliata. The spring type is caused y timothy and orchard grass. The method of revention of Koessel, popularized by Walker, as been found excellent in my hands. An alcoolic extract of the pollen powder is made and iven hypodermically in small doses, graduly increased and carried through the first ew weeks of the opening of the season.

B. **Due to Food**—This is really, in spite of nuch that has been said, a rare cause of asthma, s it is found clinically. People who have ood asthma usually find it out early in life. For instance, I have a patient who has asthma

Perennial Asthma: Development



every time he eats a brazil nut. He discovered this when he was 7 years old, and demonstrated it amply to many members of his family. He reacts monstrously to an intradermal test with brazil nut extract. He never eats brazil nuts unless he bites into one accidentally when handed a candy made of brazil nuts, the nut being covered by a layer of chocolate. If he bites into it he immediately spits it out but the very little he gets on his teeth and tongue are enough to make him uncomfortable for two hours.

This history is typical of most cases of food asthma. The patient tells you the diagnosis. Few obscure clinical cases fall in this category.

C. **Due to Animal Emanations**—This is an important and rather large class. Horse, dog, rabbit, chicken and goose sensitiveness seem to be the most frequent. Occasionally the outside and the inside of an animal, e. g., chicken feathers and chicken meat—both occasion allergic symptoms, but my own findings do not agree with those workers who find these conditions frequently.

The stuffing of familiar pillows and mattresses must always be remembered in connection with animal hypersensitiveness.

Treatment of this type will depend upon circumstances. It is not always possible to avoid contact with the animal—for instance, if it is horsehair or dog hair, and immunization must be tried. It succeeds in about one out of four cases.

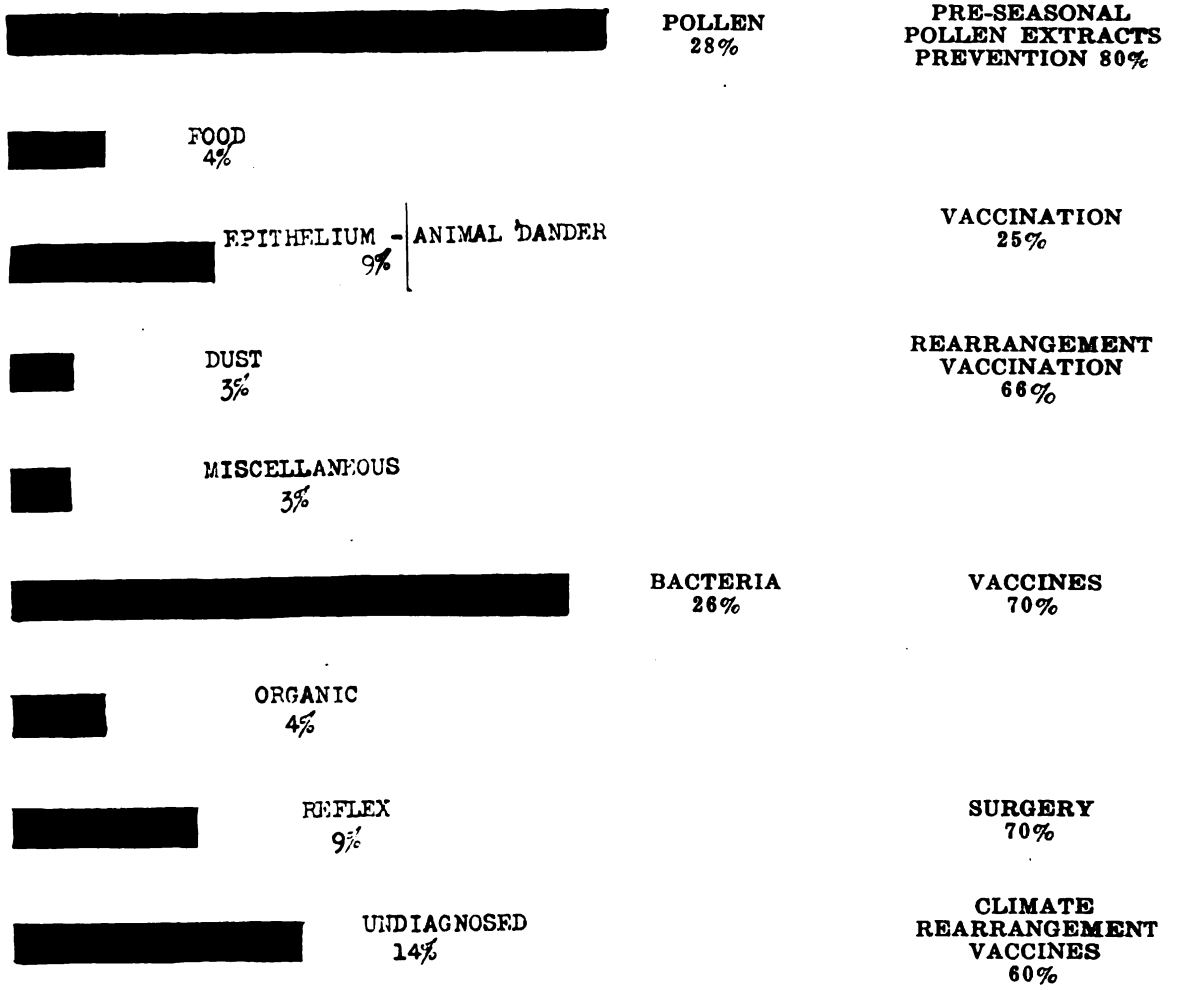
D. **Due to Miscellaneous Causes**—In this group belong the romantic adventure stories of diagnosis. All sorts of objects must be suspected—orris root (used in talcum powder and sachets), and glue (the mucilage on the backs of stamps and envelopes), especially Boxwood dust, perfumes, woods, dyes, clothes ink, typewriter ink, metals, drugs, tooth pastes, soaps, matches, tobaccos, corn plasters, paints, automobile accessories, etc., etc., must all be suspected.

E. **Due to Dust**—The dust from the patient's room is collected—the remains of vacuum cleaner bag or carpet sweeper—and extracted in ether and used for cutaneous tests. The number of cases which react positively in this way is becoming larger and larger. The substance present in the dust which causes symptoms may be emanations from pillows, mattresses or talcum powders or insect powders, etc.

Cleaning and rearrangement of the patient's sleeping quarters is the proper treatment. In some cases an extract of the dust hypodermically may be more feasible and effective.

F. **Due to Bacteria**—In mosts cases of asthma, there is a definite bronchial infection. Often the onset of an asthma dates from such an infection. If the sputum of such cases is plated out and the colonies separated and separate colonies made, skin tests with each bacterial extract will show a positive reaction to one or two of the organisms in a large number of cases. The use of vaccines made with these bacteria is highly effective in certain cases. Some patients are sensitive to colon bacilli; some to the bacteria found in foci of infection.

Rakemann's results with vaccines in asthma cases have been very good. The large New York clinic of Cooke and Vanderveer are very



Causes of asthma in first column; methods and results of treatment in second; percentages indicate good results.

:eptical of the method. In my own experience has been very valuable. It must be borne in ind that sensitive patients cannot stand large)ses of vaccines: the dosage must be very 'adually increased.

IV. **Undiagnosed Cases. Non-Specific 'ethods of Treatment**—In a certain number of :thma cases no matter how carefully studied,) conscientiously certain conclusion as to the ıuse can be reached. Treatment, however, :ed not be abandoned on this account. The rst item in the treatment of such cases is the :arrangement of their daily lives. Removal to different climate may bring entire relief. If ıis is not feasible, complete change of living ıarters, including bedding, pillows, blankets, allpaper, etc., should be instituted. Removal f infected teeth, tonsils, etc., is frequently of reat benefit. Daily affusions of cold water, ıe patient sitting in a bath tub and the at-:ndant pouring a pitcher or basin of cold water 'om a considerable height over the shoulders nd back, is, as I can strongly testify, often ıagically beneficial.

The use of the subcutaneous injection of the atient's own defibrinated blood as recom-ıended by Kahm and Emsheimer is a ıeasure which in many cases is unquestionably eneficial. The technique is simple:

Twenty-five c.c. of blood is removed from he patient's median basilic vein, and trans-:rred to a sterile bottle or flask containing ome sterile glass beads. The blood is gently haken for ten minutes until defibrinated, fil-ered through sterile gauze into a sterile medi-ine glass, taken up in a syringe and injected ıto the interscapular space. Injections are ıade once every few days for seven to ten imes. If no improvement has occurred after hree injections it is usually useless to con-inue.

A medical remedy not sufficiently often re-ıembered is iodide of potash. I know two pa-ients who have taken it for years and remained ree from asthma which immediately returns if hey give it up.

Summary—The causes of asthma are vari-us. The present state of our knowledge ıakes us consider the basis of the condition to e a particular hypersensitiveness of the bron-hial musculature which in most cases is prob-bly hereditary. With this background many auses can initiate the symptom asthma.

In treatment we must keep in mind the fact hat the general condition will probably always ersist. Once an asthmatic always an asth-ıatic. But modern investigation has shown hat by a careful examination and ferreting out f the causes of each particular case much may e done to relieve them, and by intelligent di-rection of their lives they may be saved from the serious complications of their condition.

BIBLIOGRAPHY Hypersensitiveness

1. Von Pirquet & Schick—Die Serum krankheit. 1905.
2. Rosenau & Anderson—Bull. U. S. P. H. & M. H. S. Hyg. Lab. No. 45. 1908.
3. Auer & Lewis—Jour. Exp. Med. 1910. XII. 151.
4. Ollo-Murchi Med. Welnser. 1907. 1665.
5. Coca—Chapter on Hypersensitiveness in Tice's Practice of Medicine. 1921.
6. Schloss—Am. Jour. Diseases of Children. June. 1912. Vol. XIX. Page 433.
7. Talbot—Boston Med. & Surg. Jour. August 10. 1916.

Asthma

8. Miller, W. S.—Musculature of the finer Divisions of the Bronchial Tree. Am. Rev. Tbc. Vol. V No. 9. Nov. 1921
9. Boughton—Jour. A. M. A. LXXIII. 1912.
10. Kamchorn & Ellis—Pathology of Bronchial Asthma. Am. J. Med. Sci. CLXI. No. 4. April, 1921.
11. Kahm & Emsheimer—Treatment of Bronchial Asthma with Autogenous Defibrinated Blood. Arch. Int. Med. October, 1916.
12. Walker—Studies on the Cause and Treatment of Bronchial Asthma. Jour. A. M. A. Vol. LXIX. No. V. August 4, 1917.
13. Rackemann—Vaccine Treatment of Asthma. Med. Clin. North America. Vol. 4. No. 6.
14. Vandeveer—Present Status of the Treatment of Hay-Fever and Asthma. Am. Jour. Med. Sci. Vol. 16. No. 1. July 1922.

CESAREAN SECTION UNDER LOCAL ANESTHESIA

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Report of Three Cases

IN THIS hour of modern surgery, it is perhaps a trifle tame to present a paper on local anesthesia.

Without any attempt to go into the uses and abuses of this method, I wish to direct your attention to its application in a field of surgery, in which, while it has been advocated and used by some surgeons, its full benefits have not been realized by the majority of the profession. That is cesarean section.

Regardless of the idealistic manner for selecting the proper time and preparation of our cases, the surgeon in this section of the country, meets and will for some time continue to meet his Cesarean sections as a necessity demanding immediate relief. When first seen these cases are too often not only unprepared but are neglected, infected and exhausted from hours of unsuccessful efforts at delivery. The burden does not always rest with the attending physician, neither is he free from responsibility. If we will but impress upon our minds that procrastination and meddling is the thief of time in these cases, we will save many lives and much suffering.

Without dictating when or by what route cesarean section should be done, let us consider the advantages and disadvantages when we are confronted with the necessity of this operation.

The advantages are: First. It is free from danger, for mother and child. Second. There

Read before the Kansas Medical Society, May, 1920.

is no post-operative nausea and vomiting, the abdominal muscles remain quiet, consequently the mother is decidedly more comfortable. Third. Shock is absolutely prevented. Fourth. Acidosis, fatty degeneration, post-operative, pneumonia and paralytic illeus are not produced or even approached. Therefore the patient's resistance is reserved and the effects of any infection which may have been introduced during or preceding operation are greatly reduced. Fifth. There is no danger of producing cerebral hemorrhage or emboli. Sixth. In complicated cases which are already taxing the patient's resistance to its capacity as; renal insufficiency with albumin, casts, and high blood pressure, profuse hemorrhage, organic heart disease, chronic infection, exohthalmic, goiter, etc., in which inhalation anesthesia is decidedly hazardous if not absolutely prohibitive, local anesthesia is used with safety—the patient returning from the operating room without any perceptable change in her general condition.

The disadvantages are few. There may be a little pain while the uterus is being delivered, but not as much during the entire operation as is occasioned by one good labor pain. The time required is a trifle longer, but the condition of the patient remains the same throughout the operation, and time is not a factor, as the entire operation seldom requires over twenty-five or thirty minutes. Perhaps the most objectionable feature is the dread the patient or her relatives may have of an operation while conscious. A little properly directed persuasion will usually overcome this. Now if in local anesthesia we have a method comparatively free from objections, whereby we can safely operate desperate cases, why then is it not logical to extend its application and advocate a more general use of this improved method? In the following case reports I hope to show some of its practical applications.

Report of Three Cases

Case No. 1: Mrs. E. S., age 20, housewife; primipara, no miscarriage; normal weight 180 pounds. Entered hospital July 7, 1919. Family history negative. Personal history. She has had the diseases of childhood, including scarlet fever. No other illness. Menstruation regular, 28-day tvpe, no pain. Last menstruation October 25, 1918. She was well during the first six months of her pregnancy, but during the seventh month she began to suffer from dyspnea, nausea and swelling of the hands, face and feet. For the last four weeks her eyesight has gradually failed and one week ago she became almost totally blind, being only able to distinguish an object when held close to her eyes, but unable to perceive the outlines at all. On July 7 she consulted her physician for the first time. Physical examination shows a well developed plethoric patient, with marked edema of the hands, face and feet. Her blood pressure is 260 systolic and 130 diastolic. The heart, lungs and reflexes are normal. There is slight twitching of the facial muscles. Opthalmoscopy show a marked albuminuric retinitis. The foetal heart is audible. Thee is no cervical dilation, the os is rigid. The urine is loaded with albumin, epithelial granular, and hyaline casts. Diacetic acid and acetone are present. There are 4,300,000 red and 7,000 white cells. Hemoglobin 80 per cent. Coagulation time is normal.

Alkalies, hot packs, and elimination were tried without benefit. July 12th, Cesarean section was done under local anesthesia. Morphine ¼ gr. was given forty-five minutes before operation. Novocaine 0.5 per cent was used by the infiltration method. The uterus was not injected and no pain experienced when it was incised. The transperitoneal route was employed and a seven-pound child was delivered. The child was in good condition and no restoration was needed as is frequently required with inhalation anesthesia. The mother complained of pain when the gravid uterus was delivered through the abdominal incision, but otherwise the operation was absolutely painless. The mother's post-operative condition was very comfortable and otherwise uneventful. Her urine rapidly became normal and while the eyesight improved considerably, it was still greatly impaired when I last heard from her six months after the operation.

Case No. 2: Mrs. D. D.; age 32, housewife, primipara. One miscarriage. Normal weight 140 pounds. First seen January 9, 1920. Family history: Father died of carcinoma, mother died of apoplexy. Personal history: Diseases of childhood, malaria at twelve, tonsilitis at fourteen, followed by a light attack of rheumatism; menstruation regular, some pain; last menstruation July 3, 1919. She did not menstruate in June, but in July she flowed freely and passed some clots, and had more pain than usual at her menstruation period. For the next few weeks she was fairly comfortable. Twelve weeks ago she noticed her feet were swlling and the last nine weeks she has had epistaxis every day, usually quite freely. Seven weeks ago she was put to bed, under the care of a nurse; she remained in bed five weeks. Her chart shows she ran a temperature every day. The temperature was very irregular ranging from 97 3-5 to 103. She had no pain but was nervous and unable to rest and had been given a little morphine nearly every day. Physical examination shows a frail, anemic patient with waxy complexion who bears the ear marks of being very sick. Petechial spots are seen over the neck, chest, abdomen, limbs, upon the soles of the feet and in palms of hands. She has no pain or tenderness. The lungs are clear, reflexes are normal. Blood pressure 13 systolic and 90 diastolic. The heart is enlarged with a soft systolic murmur. Eyes are normal. Tonsils are small and no evidence of disease. The spleen is slightly enlarged. The liver extends three fingers below the costal border. X-ray examination shows the teeth to be normal. The urine shows a few casts and a trace of albumin, diacetic acid and of acetone are found. It might be noted that the urine findings were not constant, as many of the daily examinations showed practically a normal urine. Widal, Wasserman's and blood culture is negative. The blood contains 2,100,000 red and 8,000 white cells. There are no nucleated reds and only a few distorted red cells are seen. Coagulation time is fifteen minutes. Hemoglobin is 30 per cent. Stool examination is negative. The foetal heart is not heard. January 15th she was given blood trans-

ion of 350 cc. by the syringe method. This reduced coagulation time to eight minutes. She had no re nose bleed. January 17th cesarean section with hnique as described in case 1 was done and a three l one-half pound child was delivered which lived elve hours. The mother suffered no pain during or lowing operation. Her general condition apparent- was not disturbed in any way by the operation. e had a pulse of 92 before entering the operating m, and 90 when returned to her bed. Owing to the ofuse epistaxis she had been having I was fearful of norrhage, but fortunately the bleeding was no ater than is normal in such cases, which was un- estionably due to the transfusion.

The post-operative course was extremely sat- actory, but her general condition did not prove. She was given a transfusion of 300 . of blood on January 23 and 1055 cc. on Feb- ary 12. She gradually grew worse and on arch 13 suddenly became unconscious with a ght sided hemiplegia and died March 15. Post ortem examination showed malignant endo- rditis with vegetation on the heart valves d infarcts in the spleen. No cultures were tained as the body had been embalmed be- re consent for the post mortem was granted.

Case No. 3: Mrs. D.; aged 41, housewife, normal eight 212 pounds, multipara eight, all living; one iscarriage at five months, one year ago. Family his- ry negative, except one sister died of child birth. ersonal history: Diseases of childhood and an attack f muscular rheumatism five years ago, menstruation gular, no pain. Entered hospital on January 8, 1919. he is now eight months pregnant. For the last four onths she has complained of dimness of vision. Her nds, face and feet have been swollen for the last o months. Four weeks ago she became almost to- lly blind. She has suffered from headache, nausea nd vomiting since the onset of her blindness. Phy- ical examination shows a large plethoric patient hose skin is comparatively clear. Her blood pres- ure is 210 systolic and 140 diastolic. Her lungs, eart and reflexes are normal and there is no muscular witching. Opthalmoscopy shows a well marked re- initis. She is unable to count fingers at all, her urine s loaded with albumin, hyaline, granular and epithe- al casts. There is a trace of blood and some pus in er urine. Diacetic acid and acetone are present. She as 5,600,000 red cells and 7,500 white. Her hemo- globin is 90 per cent and coagulation is normal. She as given the benefit of elimination and akaline treat- ment without any improvement, and on January 12, esarean section as described in two previous case re- orts was performed and a four and one-half pound hild was delivered. The operation was conducted ithout pain and mother's condition remained the ame through the entire operation. Her post-operative condition was comfortable and much better than is expected in Cesarean section cases. A report from her ten days ago states that her eyesight is still greatly impaired. The child was undeveloped and poorly nourished and little hopes were entertained for its survival. However, it gained rapidly and is still a living evidence in favor of this improved method.

While my methods may be open to criticism, they were done in what we think was the best interest of the mother and child, and the results speak for themselves, as they are in harmony with the results obtained by other surgeons under local anesthesia.

ELECTRO-COAGULATION OF TONSILS

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THE reduction of hypertrophied tonsils, as well as the destruction of badly diseased tonsils, with high frequency currents, is more and more demanding the attention of the general practitioner who first sees the vast majority of these cases. When one considers the growing antipathy toward their removal by surgical means there is increasing need of investigating other methods of treatment.

It is a bloodless operation that can be performed in one's office and requires but a few minutes. The pain occasioned by the treatment can be controlled by any good local anesthetic. The writer uses a 2 per cent of all except Butyn, which can be used as low as one- fifth of 1 per cent and all without danger of toxic effects if cocaine is omitted from the list, as it should be. The local anesthetic should be injected into the tonsil as well as the peritonsillar tissues.

All tonsils needing treatment can be taken care of with the high frequency currents. This includes everything from the simple hypertrophy, the repeatedly infected, inflamed tonsils, those badly diseased and abscessed, to the malignant tonsils and it makes no difference whether the malignancy is of the sarcomatous or carcinomatous type, providing the diseased tissues are electro-coagulated. It makes no difference whether the tonsils are acutely infected or long since chronically so. The high frequency treatment of badly infected tonsils need not be delayed until the infection can be abated by some other means as it is sometimes necessary to do before cutting operations.

Hospitalization of the patient is unnecessary as it is purely an office treatment excepting malignancies. Preoperative sterilization of the throat is wholly unnecessary as the current does that by the best method known to the world today—excessive heat. Post-operative sterilization is best accomplished by the use of actinic rays from a water-cooled, quartz mercury lamp. All bacteria are killed by a temperature above 160 degrees F. and one has no trouble raising the temperature of the tonsil to 212 degrees F. or higher.

The treatment by electro-coagulation with high frequency currents is bloodless, hence there is no need of hemostasis or hemostatics. The only articles needed besides the machine (which for this work should have a capacity of about 1,000 milliamperes) will be a pair of good

flexible conducting cords with sufficient length to reach the patient easily, a good foot switch for the direct control of the current by the operator, a good hard-rubber handle of convenient size and length capable of holding a pliable needle of sufficient length to reach the tonsil without effort, and a wooden tongue depressor. If the tonsil is hidden behind the anterior pillar, a blunt hook or retractor will be needed so an assistant can hold the pillar out of the line of vision and away from the current. Any non-conduction material can be used for the depression of the tongue.

If it is desirable to insulate the needle, it is easily accomplished by slipping small rubber tubing over it, covering all but the distal inch which should be as sharply pointed as it is convenient to handle.

The actual treatment is as follows: anesthetize the tonsil and peritonsillar tissues; set the high frequency machine to deliver about 300 milliamperes of D'Arsonval current which is sufficient for simple hypertrophies (use about 600 milliamperes if destruction is desired); have the patient sitting where a good light can be thrown into the throat; have the foot switch at a convenient distance; one pole of the current going to the patient's hands (an auto-condensation handle is best for this). Now with your needle holder and tongue depressor you are ready for action. If mere reduction in size is wanted, lay the needle on the tonsil and step on the foot switch, watching carefully the action on the tissues and as soon as the tissues commence to blanch, stop and move the needle to a new area, and proceed as above until all areas are equally treated, at which time the patient is ready to go about his regular duties.

However, if you wish to destroy the tonsil, use the stronger current and insert the needle into the tonsil tissue about one-fourth inch, then proceed as before, again watching for the blanched appearance which will take a slightly longer time (a few seconds only) and will mean that the tissue around the point of the needle has been coagulated and destroyed. Now reinsert the needle into a new area and continue until the desired destruction has been accomplished and again your patient can go about his daily occupation.

The destroyed tissue will come away in about ten days of its own accord. Do not attempt forcible removal or you will start bleeding. One treatment is usually sufficient; however, if not, another can be given a month later. The actual working time for both tonsils should not be over five minutes.

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NEPHROLITHIASIS AS A COMP CATION OF PREGNANCY

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A SOMEWHAT exhaustive survey of literature of the subject supplemen by a careful analytical study of private and hospital cases leads me to fo late the following conclusions:

Renal lithiasis associated with, or compli ing pregnancy, has not received adeq study. Not infrequently, it escapes detect not uncommonly, it is misdiagnosed and th fore injudiciously treated.

Nephrolithiasis occurs at all periods of child-bearing age; in primiparae, deutipa and multiparae. It may coexist with con tions in other organs. It is observed in p nancies normal or abnormal in type, loc and evolution; it may be one of two or m pathological states coexisting with, and i encing or not, the evolution of an other normal gestation.

Renal calculi, associated with or compli ing pregnancy, are unilateral or bilateral, gle, double or multiple and (like calculi in non-pregnant) vary in location, shape, mobility, chemical composition and o characteristics. Their formation either a dates, is simultaneous with, or consecutive the first or any succeeding pregnancy of patient at hand.

The calculi excepted, the calculous kid may show but slight structural deviation f the normal; or it may be anomalous in (single kidney), (fused kidney), b. loca (ectopic kidney), or c. structure (polyc kidney, hydronephrosis, pyonephrosis). anatomical anomalies presented by a calcul kidney are congenital, acquired, or both.

If acquired, they are either of indep ent origin, or determined by the presence calculi. Renal calculi, sooner or later, prov structural kidney changes, degenerative, flammatory, hyperlastic or neoplastic, nature.

Nephrolithiasis, occuring in preg women, determines the same anatom changes, in the affected kidney as are found the calculous kidney of the non-pregn These structural changes, the resultant of tation, obstruction and infection, mani themselves by exudative, proliferating and generative processes, often suppurative character; rarely, neoplastic. Under the in ence of stones, the epithelium of the re tubules may necrose, form cysts or become

*Abstract of an as yet unpublished paper read at th annual meeting of the Illinois Medical Society, 192 Chicago, Ill.

ınt. In the absence of infection, the ns presented are those of atrophic and dif- nephritis. •Generally, the aseptic stage of ılus is brief. Infection, sooner or later, rvenes and gives rise to one or more of the wing conditions: Pyelonephritis with or out abscess formation, perinephritis, scler- or suppurative pyonephrosis, and partial or plete conversion of the kidney into a olipomatous mass.

nephrolithiasis, early diagnosis leads to institution of logical treatment before ir- rable kidney changes have taken place. An rate diagnosis presupposes an intelligent pretation of the subjective symptoms, of bacterial, chemical and microscopical urin- findings, of the X-ray data and also the bined use of the cystoscope and the X-rays mployed in pylography. In every case e should be a complete roentgenographic sure of the urinary bladder of both kidneys both ureters. The skiagraph is a permanent rd. Skiagraphy shows (a) whether cal- are present in one or both kidneys; (b) number, size and shape of the calculi; (c) r location-pelvis, calyx, parenchyma, or or hydronephritic cavities; (d) the pres- of extra-renal calcareous deposits.

ylography, a most valuable diagnostic pro- ıre, should only be employed when the gers attending its use are far outweighed he information which it offers. It enables to determine the presence or absence of ıologic changes in the reno-pelvic outline whether a doubtful shadow is or is not a-renal.

ain, local and radiating, is the most impor- subjective symptom. Its character and nsity are influenced by many factors; size, ıre and mobility of the calculus or calculi, ree and actuity of infection, etc. It is pro- ed by walking, fatigue or exercise, and sub- s with rest. Hematuria, intermittent or tinuous, scant or profuse, and pyuria are important symptoms.

n cases of persistent lumbar pain, a radio- ph of the kidneys, ureters and urinary blad- is of great service to the clinician. Radi- aphy of the urinary system has limitations, ermined to a large extent by:

a) Defective technique.
b) Defective interpretation of shadows n in the negative.
c) Impossibility of obtaining a satisfac- y negative.
d) Defects in negatives.
e) Caseous kidneys.
f) Calcified mesenteric glands.
g) Phleboliths.
h) Bony deposits in the pelvic ligaments.

f the symptoms be mild, obscure, indefinite l indentification of the X-ray shadows uncertain, the medical treatment of renal lithiasis is to be instituted and the pregnancy is permitted to proceed undisturbed. After the puerperium, or better, after the period of lactation, operative treatment is to be urged in suitable cases.

As many renal stones are spontaneously expelled, a patient should be kept under observation for a limited period of time and nature given full opportunity to remove the stone or stones without recourse to surgical intervention. Operations for renal stones give such good immediate and remote results, that treatment with supposed solvents finds few advocates.

In the absence of contra-indications, operation can be performed with safety up to the sixth month of pregnancy, to both mother and child. Up to that time in the absence of contra-indications, operative treatment is to be instituted in cases:

(a) Of renal calculi too large to be spontaneously expelled through the natural channels. Even if the symptoms be recent in origin, or slight in intensity, nothing is gained by delay. Be not too optimistic as to small renal calculi; of all calculi, they are the ones most apt to lodge and become impacted in the ureter.

(b) Of multiple calculi, irrespective of site, size or number.

(c) Of recurring attacks of excessive pain localized to, or radiating from, the renal region

(d) Of profuse or continuous hematuria.

(e) Of acute pyelonephritis, of cortical or pericortical pus formation and pus collection, and bilateral pyelonephritis.

(f) Of a calculus giving rise to urinary retention within the renal pelvis. Such retention, always a menace to kidney integrity, may lead to hydronephrosis, pyonephrosis, etc. A stone in the cortex of the kidney does not furnish as urgent an indication for operation as one in the renal pelvis.

(g) Obstructive calculous anuria. This condition calls for immediate relief.

(h) Of bilateral nephrolithiasis. In bilateral cases, first operate on the least involved kidney provided there is no acute pathological process in the other kidney, requiring immediate attention. In from two to three weeks, operate on the other kidney. If one of the kidneys be the seat of acute complications, it should be the first to receive surgical relief.

(i) Of stone in one kidney and disease in the other.

(j) Of renal lithiasis co-existing with tubercular or neoplastic disease of the same kidney.

(k) Of a calculus or calculi in a patient's only kidney; here, the patient's existence de-

pends on the unhampered function of his remaining or sole kidney.

Nephrolithiasis ad its complications are subjected for cure to the following operations, each of which has its respective indications, limitations and increasing field of usefulness—pelviolithotomy, nephrolithotomy, nephrectomy, nephrostomy, incision and evacuation of perinephric phlegmons. It may be necessary to supplement any of the aforementioned operations with temporary drainage of the renal pelvis. renal parenchyma, or perirenal regions. Always ascertain, before operating for renal stones, the functional efficiency of the opposite kidney; as, the necessity for a nephrectomy may arise unexpectedly during the course of any kidney operation.

Pelviotomy or pelvic-lithotomy, the operation of election, the operation most generally used for nephrolithiasis, is well adapted to the removal of stones present in the renal pelvis. With it, dangerous hemorrhage, immediate, consecutive or secondary is of rare occurrence. Pyelotomy does not injure the renal parenchyma. It is unsuited for removal of voluminous or branched calculi. The pelvis is to be incised on its posterior vascular aspect.

Nephrotomy or nephrolithotomy, is attended with destruction of kidney tissue, and followed at times by secondary hemorrhage. The friability of the kidney tissue may be such that the stitches tear out. Nephrotomy permits a thorough exploration of the organ and a complete removal of the calculi. It possesses the signal advantage of not entailing the sacrifice of the kidney. It is employed also if a calculus or calculi lie just beneath the renal surface, if the renal pelvis is abnormally small or if the kidney is so bound by adhesions that its exteriorization is inadvisable. If pyelotomy be out of the question, nephrotomy is the operation of election for nephrolithiasis. Usually all the calculi can be removed through a large incision; in special cases, several small incisions may be made. If infection exists, pass a drain through the cut cortex to the renal pelvis, also pass a drain to the kidney.

Nephrectomy is indicated:

(a) In multiple, parenchymatous, large coral-shaped calculi unsuited to pyelotomy or nephrotomy.

(b) In renal hemorrhage that cannot be checked.

(c) In cases presenting advanced necrotic, suppurative or destructive renal changes.

(d) When the kidney is reduced to a mere shell.

(e) When the kidney has been transformed into a sclero-lipomatous mass.

(f) If it seems probable that nephrolithtomy will leave a permanent urinary fistula.

(g) In chronic fistulae of the kidney, pelvis or ureter which have not yielded to non-operative treatment.

(h) In malignant disease such as tuberculosis, cancer, etc., in a stone bearing kidney.

If there be doubt as to the functional integrity of the other kidney, nephrectomy is not to be performed. Nephrectomy has had to be performed during the actual existence of pregnancy in many cases with satisfactory result as regards the mother, the continuance of pregnancy and the health of the child.

Nephrolithiasis in pregnant women calls for the same operative procedure as in the non-pregnant. In the pregnant these operative procedures have the same indications, limitations, palliative and curative efficacy, as in the non-pregnant. During pregnancy, the lumbar route or approach to the kidney is the only one that can be considered. Pregnancy apparently does not unfavorably influence the prognosis of operations for the relief of nephrolithiasis.

Operations for the relief and cure of nephrolithiasis and its various complications do not any more than other major abdominal operation, such as appendectomy, cholecystectomy etc., unfavorably influence the course of pregnancy. They do not jeopardize the foetal or maternal life.

In the pregnant, after operations performed for nephrolithiasis or any of its various complications, gestation usually follows its evolution undisturbed and is but slightly more hazardous to mother and child than pregnancy under normal conditions, provided the remaining kidney is functioning normally. Parturition and lactation are not influenced by operative relief. The nephrectomized woman may be permitted to marry, or, if married, to undertake the risk of pregnancy provided she is in otherwise fit condition. As a rule, there is no reason to interrupt pregnancy occurring in women with only a single kidney. If the remaining kidney is healthy, the strain of pregnancy can be fairly well borne. The development and persistence of serious symptoms may, if operative treatment be absolutely contra-indicated, call for the induction of abortion or of premature labor.

HO! FOR CALIFORNIA

California invites you to attend the American Medical Association in San Francisco, June 25 to 29. Come and bring your family and enjoy a life-extending vacation in California. Special train service will be in effect via the Missouri Pacific Railway via Royal Gorge, Salt Lake City, and the Feather River Canyon. The Santa Fe will run a special train via Grand Canyon and Colorado Springs direct to Los Angeles. The trip on to San Francisco may be made either by rail or boat. The round trip rate from Kansas City will be $72.00, choice of various routes returning. Announcements will be found on another page of this issue. For hotel reservations or information regarding the clinics write to Dr. W. E. Musgrave, 806 Balboa Building, San Francisco, Calif.

OXIC FACTORS IN INTESTINAL OBSTRUCTION

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TESTINAL obstruction is one of the most erious acute abdominal conditions, hav- ng a death rate that has been estimated ixty per cent. It is of like interest to all lical men because all are at some time ed upon to diagnose or treat it. Because ts exceeding high mortality it is an intense- ractical subject for investigation.

: would not be pertinent, in the short time wed, to review the etiology, pathology and iptoms of the disease. I wish to present fly some of the results of experimentation draw from them what practical conclu- is possible at this time.

Such experimental work has been done to ermine the cause of death in intestinal ob- ction. Previous to the beginning of true erimental work various theories were ex- ssed but these have had very little scientific is. Disorganization of the nervous chanism, infection and intoxication have h been advanced as the cause of death. In w of some of the more recent conclusions is of interest to know that Amussat in 91[1] stated that death was brought about by oxication from stagnating and decomposing estinal content. The conclusion of the more ent experimenters are so varied that it is ite obvious that the nature of the toxic fac- has not yet been proven. In 1911 Murphy d Vincent[2] concluded that the symptoms of us were due to a disturbance of circulation the obstructed gut. Following this Hart- ll and Hoguet[3] believed that the exudation large quantities of liquid into the obstructed wel, producing dehydration, was the cause death. Draper[4] suggested that the secre- ns of the upper intestine are toxic but un- r normal conditions are neutralized by the ucosa of the lower bowel. Whipple[5] and his -workers think that they have found proof at the toxine is a proteose derived from the usoca of the obstructed gut. Murphy, rooks[6] and others are of the opinion that bac- rial action is essential in the production of e toxic factor. Sweet[7] and his associates ate that since the acute symptoms of intes- nal obstruction and pancreatitis are similar e same toxine may be produced and active both conditions and thus concluding that e the pancreatic juice may be the chief fac- r in the toxine formation.

It is quite probable that the toxine is a oison- substance formed in the upper intes- tinal tract, whether it be a proteose, amine, chlorine or neurine, al lof which have been suggested. The toxic substance from an obstructed intestine injected into the blood stream of a normal animal will produce symptoms of intestinal obstruction and, if in sufficient quantity, an early death.

Working in conjunction with Dr. Russell L. Haden of the University of Kansas we have approached the subject from a somewhat different angle. It has not been our object to try to determine the nature of the toxine or how it is produced, but to learn the chemical changes that occur in the blood and urine during the toxemia. Our interest was first stimulated in this work by the study of three gastroenterostomy patients who had severe reactions following operation. The blood chemistry findings in these cases showed an increase in the urea, non-protein nitrogen, CO_2 combining power of the plasma and a diminution in the chlorides. The urine showed a marked increase in the output of urea and non-protein nitrogen with a decrease in the chlorides.

The increase in the non-protein nitrogen in the absence of kidney disease, indicates a destruction of protein material by the toxine involved. The increase in the CO_2 shows an alkalosis. The existence of an alkalosis in such conditions is in contrast to the general idea we have in such cases. An acidosis has formerly been suspected in patients with a dry tongue, rapid pulse, fever, prostration and sometimes delirium following operations. The lowering of the chlorides in the blood and urine resembles the so-called retention of chlorides in pneumonia. The significance of this we do not know.

We have reasoned that the toxic factor in these gastroenterostomy cases is found in the duodenum after a temporary partial obstruction at the stoma, due to an acute angulation of the gut. This supposition has been supported by the same chemical findings in intestinal obstruction. We have attempted, by experimenting upon dogs, to bring about a condition similar to that cited in the gastroenterostomy cases, by ligating or sectioning the gut at the duodenojejunal junction and doing an anastomosis between the stomach and jejunum. Chemical findings of exactly the same nature were found. Simple duodenal obstruction rapidly produces these chemical changes with early death. Obstruction produced lower in the intestinal tract cause the same chemical changes but of slower development. In a series of twenty dogs obstructions of various types have proven that the findings are constant.

As clinicians we are interested chiefly in the practical application of experimental work.

Read before the Medical Society of the Missouri alley, St. Joseph, Mo., September 21, 1922.

What, then, is the practical value of these experiments? Wherein is it going to help us reduce the dreadful mortality of intestinal obstruction? These questions cannot be answered with finality at present. If the exact toxine involved in this intoxication can be discovered it may be possible to combat this poison by chemical means or at least stop its production by some form of chemical therapy. Even if this much cannot be done a more rational method of supportive treatment may be developed to tide the patient over the period of greatest intoxication placing the balance of recovery power in his favor. There may be some method devised to better prepare our patients for operation. Perhaps we operate too soon in some cases. If the blood and urine changes can be made to approach more nearly normal before operation our mortality may be considerably reduced. Diagnosis may also be influenced by such blood and urine analyses. Certainly they may aid in prognosis. Rabinowitch[8] has very recently shown the importance of urea determinations in acute abdominal disease. In sixteen patients those with high blood urea almost all died. The severity of the patient's condition as indicated by the high blood urea, did not correspond to the clinical picture, thus increasing the value of the method from a prognostic standpoint. In the presence of an alkalosis, as indicated by an increase in the CO_2 combining power of the blood in both our clinical cases and experiments, one would hardly be justified in administering alkalies. This is exactly what some of us have done in the past, perhaps aiding and abetting the progress of the toxemia.

There is no doubt but that the general trend of medicine is toward physiological, biological and chemical investigation and scientific treatment must be based upon these lines of investigation. Empiricism and theory are rapidly giving way to actual experimental proof.

We now have under way experiments to determine the value of certain methods of treatment in intestinal obstruction both from the standopint of the neutralization of the toxine produced and temporary supportive measures for the patient.

REFERENCES

1. Amussat: Relations de la maladie de Broussais, Paris, 1839.
2. Murphy and Vincent: Boston Med. & Surg. Jour., 1911, clxv, 684.
3. Hartwell & Hoguet: Am. Jour. Med. Sci., 1912, cxliii, 357.
4. Draper: Jour. A. M. A.,1914, lxiii, 1079.
5. Whipple: Contrib. Med. and Biol. Research, Sir Wm Osler, 1919, ii, 1065.
6. Murphy and Brooks: Arch. Int. Med., 1915, xv, 392.
7. Sweet, Peet and Hendrix: Ann. Surg., 1916. lxiii, 720.
8. Rabinowitch. Canadian Med. Asso. Jour., 1921, xi, 163.

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

THERAPEUTICS

THE branch of medicine which deals w the treatment of abnormal conditions called therapeutics.

Nature's own power, viz., **medicatrix turae,** always tends to right her own wron therefore, we should not be too ardent in pursuit of agents which interfere with t power.

The old dogma, "physicians treat but nat cures," is as true today as when uttered h dreds of years ago. However, this does mean that we should fold our hands and k a "watchful waiting" for her to do her best, worst. While unfamiiiar with the details all her methods of reconstruction, we ha made wonderful progress in the interpretati of her crying needs and are able to render service of unquestioned value.

Disease is characterized by altered phys logical function or functions, and our work l in the attempt to aid nature in the restorat of these functions. The patient is not so mu interested in the method as he is in securi relief from the symptoms which distress hi

Notwithstanding the incongruity of op ion of the best method to pursue in a giv case, our progress toward scientific therap tics has been of a nature to make us hope the dawning of the day when **pathies** and is will give way and the crown of glory pressed upon the brow of scientific medici

Physicians enthusiastic over certain metho of therapy have constructed many systems, of which are supposed to lead to the spri wherefrom we may drink of the waters health. While these systems are many a their ways devious, it may be well to menti those of most importance which are: Pha macotherapy, Surgicotherapy, Mechanoth rapy, Psychotherapy, Dietotherapy and la but by no means least Physiotherapy.

There is no question but all these syster possess merits worthy of our considerati Not one of these systems is capable of stan ing alone, but when properly combined pr sents a force of incalculable value in the rest ration of physiological function.

The multiplicity of agents and methods em ployed to assist nature in her efforts to r store function makes it impossible for any o mind to retain them all, hence the necessi for a division of the work among those mo competent, each under the line of greatest e deavor. Such team work will result in t

ıtest good that can be accomplished in lical practice. Let us not be too hasty in acceptance or condemnation of theories anced or methods employed of which we e little or no knowledge. It is quite prob- that the medical man meets with more ılfilled promises than any one engaged in other line of human endeavor; he natur- becomes a skeptic and is more or less ısable for his frequent outbursts, "bunk." often hear him say "I've tried electricity it's all bunk." He is also heard to say: is stuff about a disease having a little move- ıt all its own is too silly to be called to our ntion." Let us be charitable for he knows what he is saying. What would any of us e said forty years ago about talking across continent without wires? He who lives in ıper shack should be careful with matches. ledical progress may be likened to the ad- ce of a drunken man: he has his "ups and ms," side lurches and backward steps. So medicine, but withal considerable advance- ıt has been made. There is no medical ism what contains a kernel of good, and let us ıly the old fanning-mill process of blowing ay the chaff and retaining the grain.

Ve understand the term physiotherapy to an the use of physical agents such as light, ıt, cold, water, electricity, etc., in the treat- nt of physiological dysfunction or disease.

Certain forms of application of these agents termed hydrotherapy—in which heat and d are applied by means of water; photo- rapy, in which light is used; electrotherapy, which electric currents are employed; roent- ıotherapy in which x-rays are used and radio- erapy in which radioactive substances are ed in the treatment of disease. It is also le- imate to include under the general head of ysiotherapy massage, vibration, Swedish ovements and general gymnastics.

As has been previously stated, except in but w cases can any one agent be entirely de- nded upon in the management of conditions ıich we are called upon to treat. Team work essential to success. There is no known valu- ıle method for the treatment of disease, but hat rightfully belongs to the medical profes- on, and every physician should employ the st agent at his command.

As time goes on in sun and shade pharmaco- ierapy is gradually losing out. The modern ierapeutic cry is "off with the old and on with ıe new," but let us not be hypnotized by this ıggestion and push into the discard those gents which have been tried and found not anting.

Disease is a subject which may be viewed om many points and approached from many ıdes, the path of approach chosen by the medi- al man being that which to him seems most enticing and depends largely upon his previous training. All methods of therapy are founded upon clinical experience, and the degree of success attained by the physician depends upon his ability to profit by that experience. Great and constantly increasing advancements in knowledge have been made, especially during the past thirty years, but the old law that a knowledge of the mechanism of disease must precede scientific therapeutics still holds good.

THE THERAPY OF CERTAIN FUNCTIONAL NERVOUS DISTURBANCES

The treatment of headache or migraine, like that of fatigue, mental lethargy, and the whole complex of neurasthenia, is admittedly unsatisfactory. The reason for this lies primarily in our ignorance of the genesis of these clinical disturbances. There seems to be a crying need of immediate further studies in this field of medical research. The failure of clinical medicine to make satisfactory progress in the management of certain types of functional nervous disturbances justifies us in giving a respectful hearing to any reasonable proposal.

It would be rash, indeed, to expect to find a panacea for nervous ills in any specific form of physical therapy or dietotherapy; but there can be no harm in pointing to suggested possibilities.—Editorial—J. A. M. A., March 10, 1923.

CLASS IN PHYSIOTHERAPY GRADUATES

The first class in physiotherapy at Walter Reed General Hospital, Washington, D. C., was graduated, February 7th. Dr. Frank B. Granger, lieutenant colonel, M. O. R. C., Boston, spoke on the development of physiotherapy, emphasizing the effect the World War had in placing psysiotherapy on a scientific basis. Surg. Gen. Merritte W. Ireland presented the certificates of proficiency.

¶ Doctor Work works on Interior work; and if Work's interior works work, his Interior work will work.

TO THE MEMBERS OF THE MEDICAL ASSOCIATION OF THE SOUTHWEST

On account of the suspension of The Southwest Journal of Medicine and Surgery, a number of the papers read at the Hot Springs meeting have not been published. The Medical Herald has secured the privilege of publishing these papers, including those read before the section on Eye, Ear, Nose and Throat, and they will all appear in early issues of this magazine. The Herald will also publish all the news concerning the next meeting of the Medical Association of the Southwest, which is to be held in Kansas City in connection with the Fall Clinics, October 15th to 21st.

MISSOURI STATE MEDICAL ASSOCIATION

The annual meeting will be held at Joplin, May 9 to 11; the program and entertainment committees are preparing to make this a banner meeting. Headquarters Hotel Connor, reservations should be made early. Special round trip rates via Missouri Pacific Railway.

Members of the Western Electrotherapeutic Association, assembling in Kansas City, April 16th to 20th, are invited to make their headquarters at Hotel Bellerive, Kansas City's newest and finest hotel, located on Armour and Warwick Boulevards. A beautifully furnished room, with bath (for two people) twin beds, $5.00 per day; ten minutes' walk from the Little Theater. Reservations should be made without delay.

G. U. and Syphilology

THOMAS A. HOPKINS, M. D.

PAIN IN HYDRONEPHROSIS

In an exhaustive paper on hydronephrosis Frank and Glas (Zeitschrift f. Urologische Chirurgie) give the following under the subject of pain:

Pain is usually absent in congenital hydronephrosis. In acquired hydronephrosis, pain may be constant or periodic. In the former condition where the hydronephrosis is due to pressure from a tumor there may merely be a feeling of undefined weight or a pain due to stretching sometimes alternating with painless intervals. But the pains may be reflex, and radiate into the testicles or down into the legs or the vulva. There are quite characteristc colic attacks where the urine becomes suddenly completely blocked. These constitute the Dittel crises, and are often accompanied by fever, nausea, vomiting, chill, and disturbance of the intestines, either diarrhea or constipation. There is intense desire for urination, with the passage of but little urine. The unaffected kidney may become involved by reflex action, and complete anuria result. These crises are brought on by various conditions such as premenstrual hyperemia, sexual excitement, minimal trauma as well as by nephritic colic. Even a change of position may suffice.

The feeling of weight is by no means a constant symptom, but it may be apparent just before or just after an attack.

In the present list of 62 cases here there were five which exhibited no local symptoms, in spite of the fact that in two of these five cases there were enormously dilated kidneys, and in one of them the ureter was the size of the colon. In 12 of the cases there were only dull, undefined pains upon the affected side. But in the large majority of the cases, 45, there were typical coliky pains.

DIAGNOSIS AND TREATMENT OF TUBERCULOSIS OF THE KIDNEYS AND URINARY SYSTEM

G. Ekehorn (Hygeia, July 31, 1922) is of the opinion that the usual course in renal tuberculosis is the following: A primary tuberculous foci of infection develops in the kidney, through direct hematogenous infection from an infected embolus. This area usually spreads to the renal pelvis, causing ulceration of the papillae. On the ulcerated surfaces and the necrotic tissue beneath them, the tubercle bacilli form in great numbers. Of these many enter the urine in the renal pelvis, and from this urine t other parts of the kidney become infected, i cluding the wall of the calyx and the mu membrane of the renal pelvis. This infe is superficial and subepithelial in the b ning. From these superficial, microscope of infection some metastatic tubercle t along the lymph passages toward the c and capsule; other ulcerative processes a the hitherto normal papillae of the lateral or the points of the papillae. When nec has begun in the papillae the urinary pass may become congested and dilated, and th fection may then spread also through the the cortex. The ureters and the bladder also become infected by the urine.

The symptoms of renal tuberculosis us first manifest themselves in the bladde cystitis symptoms. The first symptoms however, appear in the renal cavity. In e tional cases there may be no other subje symptom than that of blood in the urine. bercle bacilli may be demonstrated micro ically in most cases (eighty to ninety per in the urine. In comparatively early cas renal tuberculosis, they are usually mor merous and therefore more easily de strated.

The only treatment is nephrectomy. function of the second kidney occurs on the later stages of the disease. For the las years the author has made a practice of cl the wound without drainage or tamponag it is found impossible to catheterize the ur an explorative incision is made into the he kidney, and a thorough examination ma the pelvis and upper portions of the urete inspection and palpitation. If necessary worst kidney is then removed and both wo closed and sutured. It is better to do the w operation in one sitting than to do a two-s operation. In bilateral renal tuberculosi worst kidney should be removed. In cases the other kidney will take upon itsel function of both kidneys.—N. Y. Med. Jo Abstract.

IN KANSAS CITY FORTY YEARS AG

At the recent meeting of those financially inter in the medical department of the University of sas City these gentlemen were chosen as officer the ensuing year: President, Dr. H. F. Hereford retary, Dr. N. H. Chapman; treasurer, Dr. C. Adams; curator, Dr. J. Miller; dean, Dr. J. R. Also at this meeting Dr. J. M. Allen, of Liberty, elected to the chair of the theory and practice of cine.—K. C. Times.

True lumbago may be relieved by one applicati radiant light and heat for one hour followed by frequency sparks or static wave current. Diath may be used in place of raidiant light and heat.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald
and Electro-Therapist
Incorporating the
Kansas City Medical Index-Lancet

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...ctro-Therapy: Burton B. Grover, Colorado Springs.
Surgery: Jno. E. Summers, Omaha.
All communications should be addressed to the Managing Editor.

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The Editors' Forum

WHAT IS IT?

In the writer's opinion the things that make ...r medical quackery are:

(1) To presume to cure any disease.

(2) To accept by an implied holy attitude ...at if you had arrived ten minutes later the ...tient would have died.

(3) To assume to legislate out of existence ...assign to the bottomless pit any other med...l system than your own.

(4) To practice medicine without the abid...g faith that the healing power of nature is ...ur greatest ally.

In the June, 1922, number of the Ill. Med. ...urnal, C. E. Humiston, M.D., Chicago, at...mpts to show that "Medicine is entitled to be ...lled a science, and much of it an exact science. ...e facts of anatomy are fixed and constant," ... says. "Pathology is almost as constant as ...atomy. Chemistry and physics are every...here regarded as sciences. . . . Any sys...m of treating human ailments that is not ...ilded upon such scientific foundation has no ...gal excuse to exist."

Medicine does not need to exist for or under ...gal excuses. Anything that benefits human...y, that alleviates human suffering, that ele...tes the race in an honest proven endeavor, ...ill be welcome.

Can you legislate morals into a people Can ...u legislate into use a single idea as a system ... medicine for all our ills? Your system must ...and on its merits and deliver the goods. Your laws may protect society and the general health.

At present, as Humiston says, "we have more than twenty thinly disguised forms of the practice of medicine now to be found enjoying the protection of the law."

Thus every state must necessarily have its own idea, its own law and its own system.

"No patient," he says, "no part of the public is safeguarded by permitting persons handicapped by lack of education, and handicapped by the law, to attempt to treat any and every human ailment."

They cannot be permitted to rush in and say, "We are engaged in the practice of medicine and the law must protect us and permit us."

First they must be properly educated and introduced, to be amenable to the law. Then they must live within the law.

Does the ethical, legitimate alopathic ancient or up-to-date practice of medicine—the art of medicine, founded and grounded in all that science and the experience of the ages offers, presume or assume to cure any disease —to do anything more than to attempt to assist nature and to alleviate and mitigate human suffering? What do you practice?

KANSAS.

CONCERNING THE BIOCHEMICAL PROCESSES OF DIGESTION

IT IS to be recalled that the process of digestion is a chain like process or successive steps leading to the treasure trove,—the final product formed for absorption.

In this light the highly complex molecule of which protein is composed (according to McLeod, Phys. and Bioch in Mod. Med. 3d ed., 1922) is first of all broken down into several smaller but still highly complex molecules, each of which then undergoes further disruption, until ultimately the amino acids are set free.

The natural processes of digestion, he says, as it occurs in the gastrointestinal tract, has different stages which are controlled by different enzymes. One enzyme prepares the food for action by the next. This requires a rather clock like precision of sequence that the next successive enzyme be secreted at the proper time for its use. The gastric juice is secreted first after which chemical use the food is ready for pancreatic juice. The correlation of such function, McLeod thinks, depends largely on the action of hormones.

Digestion in the Stomach

I. Pepsin and hydrochloric are particularly secreted in the gastric end of the stomach. while at the pyloric end there is less or none.

The physiologic functions of the HCl have to do with the motor control of the stomach. and of opening the pyloric sphincter.

II. The biochemical functions of the HCl are (1) to assist the pepsin in the digestion of proetins, (2) and its antiseptic action on stomach contents. Chyme as it leaves the stomach is usually sterile, though as McLeod says, it may have in it certain protected spores and bacteria, "This protection is afforded by an outer covering of a chitinous nature (spores), or, as in the case of the tubercle bacillus, by a covering of wax like material." When the normal secretion of required HCl then is interfered with "Various bacteria and yeasts grow in the stomach contents producing by the resulting fermentation irritating organic acids and gases."

It is well known that cancer of the stomach (or occasionally of some other part of the body) produces a marked diminution of Scl. Ulcer of the stomach produces just the opposite effect. Neurasthenia may produce an eratic effect on the HCl supply.

The riddle of the sphynx, stomachically speaking, has always been, Why does not the stomach digest itself?

No animal cell could live in the gastric juice of normal HCl and "yet this acid is secreted by the living membrane of the stomach."

The source of the HCl of the stomach is from the perfectly neutral blood plasma, and as to how the glands of the stomach separate this fatal acid from the neutral blood plasma requires another sphinx.

Possibly, as McLeod suggests, the HCl is not secreted by the cells of the gastric gland, but it is formed after secretion. At any rate the epithelium is no doubt impenetrable by it under normal conditions. While in lowered vitality of the epithelium "as in anemia or after partial occlusion of the arteries, the acid may penetrate the cells and cause digestion of the stomach walls. Hyperacidity may on this account become dangerous, as it lowers the resistence of the cell."

III. Pepsin. This enzyme acts only in the presence of acids. Pepsin becomes combined with protein during the digestive process. The products of peptic digestion are, (1) acid albumin or syntonin, (2) primary proteose, (3) secondary proteose, (4) peptone.

"The pepsin which leaves the stomach in the chyme is not all destroyed in the intestine. A part of the pepsin may be absorbed in the blood and carried back to the gastric glands to be used again. This would account for the presence of antipepsin in the blood and of pepsin in the urine. It is probable, however, that most of the pepsin is destroyed after it enters the intestine."

IV. The gastric juice besides digesting pepsin, curds sweet milk. This is usually accredited to rennin. The argument in late years that rennin and pepsin are the same thing is supported by this argument: "All digestive juices that are capable of digesting protein can also clot milk." That they are not identical is substantiated by this argument "An infusion of the stomach of a calf has a powerful clotting action on milk but a very weak digestive one on egg white, whereas a similar infusion from the stomach of a pig shows exactly the same properties."

"On other food stuffs than proteins the action of the gastric juice is relatively unimportant. Fat digestion also takes place in the stomach when the fat is taken in an emulsified condition, as in milk and egg yolk, but not when in masses as in meat and butter. This action is due to the presence of a fat splitting enzyme, liapase, in the gastric juice."

H. N. J.

CONCERNING THE DOCTOR

Dr. Hubert Work, former Postmaster General, and president of the American Medical Association, is now Secretary of the Interior in the cabinet of President Harding being succeeded by Senator New of Indiana as Postmaster General.

Dr. D. L. Humfreville of Pasadena, Calif., member of the Medical Society of the State of California, formerly professor of physiology at the Ensworth Medical College, St. Joseph, Mo., died February 8 from heart disease, age 48 years.

Dr. Hanau W. Loeb, dean of the St. Louis University School of Medicine, sailed from San Francisco February 22 for a tour of the Orient and will visit the medical schools of Japan, China and the Philippines.

Dr. G. Frank Lydston, of Chicago, internationally known syphilologist, died March 14th at his home in Hollywood, Calif., after a week's illness of pneumonia. Dr. Lydston arrived in Hollywood about a month ago for several months' rest and was taken ill with influenza, which quickly developed into pneumonia. He was 60 years old.

Drs. B. B. Grover, Frederick H. Morse and others conducted a school on physiotherapy in Los Angeles last month under the auspices of the County Medical Society.

Dr. George M. Boteler, assistant Health Officer of Washington, D. C., and Miss Cora Connett, of St. Joseph, Mo., will be married in New York City, April 7th.

The Western Electro-Therapeutic Association

Organized in Kansas City on May 8, 1919, for the purpose of cultivating and promoting knowledge in whatever relates to the scientific application of electricity and other physical measures in medicine and surgery.

OFFICERS FOR 1922-23

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The fifth annual meeting will be held at Kansas City, Mo., April 19-20, 1923
A cordial invitation is extended to the Medical Profession

Program

THURSDAY, APRIL 19

Scientific Session **10 o'clock a. m.**

Report of Standing Committees

Static Currents—*Dr. S. Grover Burnett, Dr. W. P. Grimes.*

Hydrotherapy — *Dr. Curran Pope, Dr. Charles Cahill.*

Research—*Dr. A. D. Willmoth, Dr. Lynne B. Greene, Dr. William L. Ross.*

Radium—*Dr. Sanford Withers, Dr. D. T. Quigley, Dr. L. A. Marty.*

Roentgenology—*Dr. H. H. Bowing, Dr. E. H. Skinner, Dr. Clyde O. Donaldson.*

Afternoon Session **2:00 o'clock**

President's Address.
Dr. T. Howard Plank, Chicago.

Physiotherapy, an Adjunct to Orthopedic Surgery.
Dr. J. E. M. Thomson, Lincoln, Neb.

Blood Pressure Interpretation
Dr. B. B. Grover, Colorado Springs.

Diagnosis and Prognosis of Pulmonary Tuberculosis. *Dr. J. D. Gibson, Denver.*

Rational Physiotherapy in the Treatment of Early Tuberculosis (lantern slides).
Dr. Roland G. Breuer, Lincoln.

Actinic Ray Therapy in Surgical and Gynecological Work.
Dr. A. David Willmoth, Louisville.

Ultra-Violet Radiation and Mineral Metabolism. *Dr. A. J. Pacini, Chicago.*

Light as a Therapeutic Agent.
Dr. J. W. Bolton, Warrensburg, Mo.

Thursday Evening Session **8:00 o'clock**

Restoration of Ileocecal Incompetency (lantern slides). *Dr. F. H. Morse, Boston.*

Special Clinical Demonstrations by the Essayists of the Day.

FRIDAY, APRIL 20

Report of Standing Committees.

Direct and Continuous Currents—*Dr. Frederick H. Morse, Dr. Burton B. Grover, Dr. Jefferson D. Gibson.*

Phototherapy—*Dr. A. J. Pacini, Dr. J. W. Neptune, Dr. E. T. Molzahn.*

High Frequency Currents—*Dr. Omar T. Cruikshank, Dr. Frank C. Fuller, Dr. Joseph Waddington.*

Afternoon Session **2:00 o'clock**

The Fundamental Principles of Radiation Therapy. *Dr. Sanford Withers, Denver.*

The Fluoroscopy of the Gastro-Intestinal Tract. *Dr. E. H. Skinner, Kansas City.*

Radium and Roentgen-Ray Therapy in the Treatment of Hodgkin's Disease.
Dr. H. H. Bowing, Rochester, Minn.

Colitis: Causative Factors and Therapy (lantern slides). *Dr. Curran Pope, Louisville*

The Biologic Effect of 200 K. V. Roentgen Ray as Compared With 130 K. V. Ray and Radium. *Dr. R. W. Fouts, Omaha.*

Operative Clinic on Malignancies—*Dr. T. Howard Plank, Chicago; Dr. L. A. Marty, Kansas City.*

Electro-Therapeutic Exhibition

The exhibition of electrotherapeutic apparatus as heretofore will be complete and at least two evening sessions will be devoted to its demonstration, making it a rare opportunity to compare the apparatus made by the different manufacturers. This exhibition alone will be worth a trip to Kansas City.

Physio-Therapeutic Week in Kansas City, April 16-20

PRESIDENT'S MESSAGE

THIS message is first to the members of the Western Electro-Therapeutic Association, and second to the medical profession in general.

Physiotherapy is fast coming into its own, as evidenced by the number of members of the medical profession who are thinking, talking, and using the various instruments of physiotherapy apparatus now on the market. Most of this apparatus is good; some pieces better than others. A few pieces are valueless except for very light work.

The recognized manufacturers are striving to outdo each other in perfecting their output and to produce apparatus that is most valuable in the greatest number of cases that the doctor has to care for. There is a sincere endeavor on their part to be exceedingly helpful toward furthering the cause of physiotherapy. If this be true, and it is, then it is up to the doctor to do his part toward finding out the therapeutic action of the various modalities and the class of cases best suited for that particular modality. Then it is up to him to find a second and a third best modality, for only in this way can he best serve his clientele.

It is not up to the doctor to work out the physics of the various pieces of apparatus, the manufacturer should do that, as the clinician has his hands full to work out the clinical aspect. On the other hand, we must not expect the manufacturer to give us the clinical data necessary to use the apparatus he makes. In short, we must work together.

All our physiotherapy societies are calling for standardized apparatus and if we will work with the manufacturer he will be glad to standardize his own products.

Medical societies are organized for the betterment of their members. Physiotherapy societies are no exception and no one has ever attended a meeting of the Western Society can help but feel the "spirit of give the best that is in them" that prevails among its members.

Now we want all members of the medical profession who possibly can to attend the April meeting. We are perfectly willing to be criticised by our friends or our enemies, and I'm not sure but that the criticisms from our enemies do us the most good, for they are at least frank in what they have to say. If their criticism be just we should harken to it; if it be unjust, we must disprove it; maybe we can show them the error of their ways. At any rate, we do not gain anything by sitting at home and grumbling because our competitor is getting the business, although he is not so well equipped in medical lore as we are.

Come out and listen to what the other fellow has to say; jump on him if you want to, tell him wherein he is wrong and possibly find out a few things wherein we only thought he was wrong. In this day of progress medical men cannot afford to stay at home. The new things are not going to come to you. You must go to them and then the contact with your fellow practitioner spurs you on to do better and bigger things; doing them easier and with less pain to the patient: getting quicker results so that there is less economic loss and a minimum of agonizing days.

This is a get-together meeting. The doctor will be there to see and hear and talk; the exhibitor to talk and demonstrate the apparatus. The talkfests will all be in the day time, the demonstrations each evening, and after three sessions a day you will be glad to tumble onto your downy couch to dream of the new things you have learned and are going to use when you get back home. This is your meeting. Come!

Yours fraternally, T. Howard Plank, M. D., President.



T. HOWARD PLANK, M.D., Chicago, Ill.,
President Western Electro-Therapeutic Association

MISSOURI VALLEY NEWS

Deceased

Dr. G. W. McClanahan, Forest City.
Dr. R. N. McMillen, Iola, Kansas.

Removals

Dr. A. Jolly from Hamburg, Iowa, to Cloverdale, Alabama.

Dr. J. Raymond Martin, Sioux City, Iowa, to 600 Hill St., c/o E. E. Heithcock, Long Beach, Calif.

Dr. S. W. Staads, 207 Mass Bldg., to 500 F. L. T. Bldg., Sioux City, Iowa.

Dr. E. A. Graham, Park Hospital, Mason City, Iowa, to Washington Medical School, St. Louis, Mo.

Dr. Jos. B. Riley, Coyville, Kansas, to Paola, Kans.

Dr. Max W. Flothow, 808 Omaha Loan Bldg. Association, to 2906 Leavenworth, Station B, Omaha.

A PHYSIOTHERAPEUTIC WEEK IN KANSAS CITY

At the Little Theater, April 16, 17, 18, 19, 20, 1923

WESTERN SCHOOL OF ELECTROTHERAPY

Fifth Session, April 16, 17, 18, 1923

CLINICS AND DEMONSTRATIONS EVERY AFTERNOON AND NIGHT

Instructors: Dr. B. B. Grover, Dr. Frederick H. Morse, Dr. T. Howard Plank, Dr. A. J. Pacini, Dr. J. D. Gibson, Dr. H. C. Bennett, Dr. Curran Pope, Dr. Lynn B. Greene.

Classes are now being formed. Number limited to those who register in advance.

Western Electrotherapeutic Association, Fifth Annual Meeting, April 19-20

Dr. T. Howard Plank, President. Essayists: Dr. B. B. Grover, Dr. Sanford Withers, Dr. E. H. Skinner, Dr. Clyde Donaldson, Dr. Curran Pope, Dr. H. H. Bowing, Dr. A. D. Willmoth, and others. The profession cordially invited to attend.

Send for programs and registration blank. Chas. Wood Fassett, M.D., Secretary, Kansas City, Mo.

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

GONORRHEA AND IMPOTENCE

By Edwin W. Hirsch, S. B., M. D., Fellow of The American Electrotherapeutic Association, American Medical Association, First Lieut. M. C., U. S. Army with an additional lecture on Ultra-Violet Radiation by A. J. Pacini, M. D. Illustrated with colored plates and many drawings. Chicago, The Solar Press, 209 S. State Street.

The contents consist of nine lectures upon the following subjects: Anatomy of the Urogenital Tract; Equipment, etc.; Acute Anterior and Posterior Urethritis; Prophylaxis and Treatment of Acute Gonorrhea; Treatment of Chronic Gonorrhea Complications of Gonorrhea; Non-Specific Urethritis—Gonorrhea in the Female; Impotence and Sterility; Ultra-Violet Radiation.

This little book contains only about 170 pages, but it is filled from cover to cover not with meaningless verbiage, but a practical and up-to-date discussion of the subject. It is written in a manner which proclaims familiarity with the subject on the part of the author.

He tells exactly what to do and how to do it, and in a manner which commands admiration. The entire work and especially the lecture on Impotence discloses that the author is "safe and sound."

It is a work of unsual value to every physician whether he does or does not treat gonnorrhea.

B. B. G.

SANE SEX LIFE AND SANE SEX LIVING

By H. W. Long, M. D. One of the 12 volumes composing the Rational Sex Series. Sold only to members of the medical and legal professions. Cloth. 144 pages. Price $5 net. Boston, Richard G. Badger. The Gorham Press, publisher. 1922.

This volume is refreshingly different from the mass of literature on sex education which has reached the reviewer. It tells, as it promises to do on its title page, "some things that all sane people ought to know about sex nature and sex functioning, its place in the economy of life, its proper training and righteous exercise." The author has made his text of a nature to give offense to no one yet he clearly goes into the necessary anatomy and physiology of the organs of both sexes, and of their relation to each other. He considers in turn: The correct mental attitude, the sex organs, their functions, the act of coitus, the first union, proper education, coitus reservatus, frequency of coitus, cleanliness and pregnancy. There isn't a suggestion of obscenity in the book, it is one which may be loaned to prospective brides and grooms with eminent propriety and to their mutually great advantage. This can rarely be said of books which claim a like purpose. Dr. Long is no faddist, he has no pet hobby to present, all that he aims at is that the most sacred and intimate of human relations shall be regarded as a clean relation and one to be intelligently used. We could wish nothing better than that the book might reach the thousands upon thousands who need its light but will never see it. If the other eleven volumes of the series are of a like excellence we want the complete set.

T. A. H.

OPERATIVE SURGERY FOR STUDENTS AND PRACTITIONERS

By John J. McGrath, M. D., F. A. C. S., Professor Surgery, Fordham University, etc. Sixth Revised Edition, 369 Illustrations. F. A. Davis Company, Publishers, Philadelphia, Penn. Price, $8.00, net.

McGrath's book has always been a good one. If it were not, it could not have reached a sixth edition. The book takes up the different regions of the body seriatim. In a way it is a regional surgery, as indicated by the chapter titles—Head and Face, Neck and Tongue, Thorax, Abdomen and Back, Rectum, Urinary System, Upper Extremity, etc. As is to be expected in an operative surgery, the illustrations are numerous. They are good, too. They really illustrate. It is very significant of the growing importance of proctology that one whole chapter of forty-five pages is devoted to the rectum. Time was when a few pages was deemed amply sufficient to cover the whole range of rectal disease in any book on surgery. But proctology like urology is now a well-established and recognized specialty, and is at last coming into its own after a long struggle for recognition. On the other hand it is refreshing to see the number of pages devoted to amputations diminishing with every new book on operative surgery. Limbs are now being saved instead of amputated. McGrath's book is a good one, and no surgeon can study it without being able to do better work as a result of that study. —Daniel Morton, M. D., F. A. C. S.

Medical Melange

BUSINESS EXPANSION

There is every indication that the physicians of this country are becoming more and more convinced that Physiotherapy has taken its rightful place in the office of the reputable, ethical and up-to-date medical man. The wonderful thing about this therapy is the fact that it is being used not only by the general man but by every specialist as well, there being no field in which some form of this therapy can not be used as an adjunct with satisfying results.

With the many appliances now offered by the various manufacturers being constantly improved and perfected, with the good literature being published on this subject and the progressive agencies willing to help on this educational work, any doctor can easily avail himself of the opportunity of sharing the rewards occasioned by a satisfied clientele.

The editor has been impressed by the rapid expansion that can be accomplished by rendering efficient service, having recently visited the display rooms of C. F. Mills, 540-4 Ridge building, Kansas City, Mo. Mr. Mills has been in this same location for the past eight years and his many customers and friends will be glad to know that he has not only increased his floor space but is also prepared to render a still greater service by augmenting his force of trained technicians. An Educational Department has also been added and it will pay any doctor to get in touch with him for the latest technique in various electrical modalities. Mr. Mills also maintains a service shop in the same building in charge of an expert electrical repair man, to take care of all mechanical troubles. Everything worth while in physical therapy and the best in X-ray is carried in stock and his quick, accurate, courteous and efficient service recommends him to you. A visit to the display room will not obligate you nor will you be importuned to make a purchase.

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There are certain names which are symbolic; there are certain symbols which are taken to express quality, efficiency, and dependability. The Sterling mark which is placed upon silver is one example of this, the symbol "H. V. C." is another. To thousands of busy doctors H. V. C. stands for a combination of Viburnum with other synergistic drugs which has for years demonstrated its value in the treatment of certain disorders or derangements of feminine function. H. V. C. stands for Hayden's Viburnum Compound. H. V. C. is an old preparation, it has been known and used for years by that class of doctors to whom the goal of treatment is the result obtained. To the busy doctor whose time and effort are given to the relief of his patients H. V. C. has come to mean a friend in need upon which he could rely and from which his patients derived relief. There are many physicians, perhaps, who have not as yet become practically acquainted with this product. Such physicians should, in justice to their patients as well as themselves, make it a case of "the proof of the pudding." It is easy to demonstrate the practical efficiency of H. V. C. A request addressed to The New York Pharmaceutical Company, Bedford Springs, Bedford, Mass., will bring a sample of the product together with interesting literature, after which, all that is necessary for a clinical test of H. V. C. is a suitable case. Try it.

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FORTIETH ANNIVERSARY

The Christian Home Orphanage, Council Bluffs, Iowa, will have rounded out forty years of service in behalf of orphan and destitute children on March 16th. This great institution, known in all parts of the country, has been built up and maintained wholly by the voluntary contributions of the people. It has no other means of support. It cares for a daily average of more than two hundred children, received from all parts of the country, and also conducts a hospital department, a department for aged, dependent women, and a department for the crippled and deformed. At present a most serious epidemic of flu has stricken the Home, more than one hundred being sick, many of them seriously. Funds are badly needed to help meet the expense of this onslaught, and to help keep the work from debt. Every department of the institution is crowded, and appeals are made to the people to help. It is hoped that a Fortieth Anniversary offering to this work will relieve a pressing situation which, if long continued, will work serious injury to the Orphanage. Send something to help these little ones. Address The Christian Home Orphanage, Council Bluffs, Iowa.

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THE OLD AND THE NEW

The disturbances of the iodides are too well known to require comment, but custom and habit sometimes lead one to stick to the old when we know the new to be better. The old conception that an alkaline salt is necessary to convey iodine, in even a limited amount to the system has, as a result of latter day research, been proved erroneous. It is true that twenty years ago it was the best method we knew, but times have changed and thousands of physicians today have proved to their entire satisfaction that the potency of iodine is increased many fold by administering it in a free state.

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Current Comment

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By Homer Clark Bennett, M. D., Lima, Ohio.

There's suthin' 'bout terbacker smoke
'At nothin' else c'n beat,
Fer dissipatin' wrinkles,
An' smoothin' out complete
Our troubles, real er fancied
We meet along the way;
It seems to sort o' even up
Our life, from day to day,

Some like it in the mornin' best,
When feelin' fresh an' new,
They say it starts things goin',
An' helps 'em all day thru;
Some likes it most at evenin',
Say, 'long 'bout half-past nine,
They certify emphatic
'At then the smokin' 's fine.

Now as fer me, I'm tellin' you,
'At while they may be right,
I'm not disputin' any one,
Preferrin' morn er night;
Of all the time in twenty-four,
The hour I want to see,
The one right after dinner
Is smokin' time fer me.

When we have finished up our work
An' e't a hearty meal,
With a pipe full o' terbacker,
Oh, then how good we feel—
With our Morris chair an' paper,
Our joy 's about replete;
Fer suthin' 's in terbacker smoke
'At nothin' else c'n beat.

It aint so all important
What sort o' pipe we use,
The thing 'at 's most essential,
'S the kind o' weed we choose;
Italian briar, er meerschaum,
A clay, er just plain cob,
'Ll give us real enjoyment,
With "our choice" on the job.

So, when it's all been said an' done,
The time my smokin' 's best,
Is after dinner 's over,
An' I set down to rest;
Then a pipe o' good terbacker
'At smokes up nice an' sweet,
'Ll bring about contentment
'At nothin' else c'n beat.

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FOR many years, pyramidon has been the favorits drug abroad for relief of headaches and pain generally. This fact has been observed by many of our doctors while traveling on the continent. Dr. Henry B. Hollen, for example, as far back as 1914, in a travel letter published in The American Journal of Clinical Medicine (September) commented on it as follows: "In Milan and elsewhere physicians have almost abandoned acetanilid as an anodyne. The new and popular drug is pyramidon. It is said to be very effective in headaches." Under the name of Amidopyrine the drug is now being supplied in five-grain tablets, by The Abbott Laboratories, Chicago, and, as it appears to be less depressant than the coal-tar remedies common with us, and to exercise a more lasting effect (one tablet often suffices for twenty-four hours) a large demand is predicted for it. Another interesting Abbott item is Hypnodyne, in which Barbital is so combined that its hypnotic effect asserts itself even in circumstances where pain keeps the patient from sleeping.

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—*American Medicine, September, 1922.*

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The Kansas City Medical Index-Lancet



Dyschezia—A, dilated ampulla of rectum; B, hypertrophied rectal valve; C, sigmoid. From **"Diseases of the Digestive Organs,"** by Chas. D. Aaron, Sc.D., M.D., F. A. C. P.

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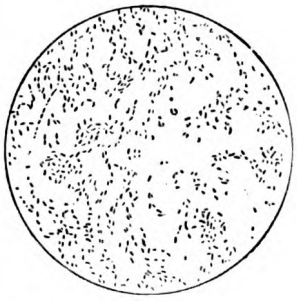
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MEDICINE—SURGERY—PHYSIOTHERAPY—X-RAY

Pertussis Serobacterins

Whooping-Cough Prevention and Treatment



Bordet-Gengou Bacillus

Commenting on the results obtained with PERTUSSIS SEROBACTERIN MIXED, Appel and Bloom state—"Comparing the 23 vaccine-treated cases with the 18 medically treated, the superiority of the former was very marked—to such an extent that even the nurses commented on the difference. The duration of the disease was shorter, the vomiting less frequent, the paroxysms milder and fewer in number. There were no complications and no deaths."

(Archives of Pediatrics, March, 1922.)

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Original Contributions
(EXCLUSIVELY FOR THE MEDICAL HERALD)

CARCINOMA IN YOUTH

WANN LANGSTON, M. D.,
Oklahoma City, Okla.

"MALIGNANT tumors may occur at any age. They may even be congenital. The malignant tumors that occur before the twentieth year are practically all sarcomata. Carcinomata are rare before that age, only one case of 806 carcinomata seen by Williams originating under twenty years."[1]

VonGlasser found only one case under twenty in a series of 527. Hertzler[2] believes many tumors in the young, reported as carcinomata, are congenital structures and not truly malignant.

It is a well known fact that the frequency of cancer and the general mortality from this cause increases with advancing age, reaching the maximum between the ages of forty-five and sixty-five. This fact has been so forcibly taught that we have come to consider the fourth, fifth and sixth decades as the "Cancer age," and in the attempt to educate the public in recent years to the importance of cancer as a cause of death, and the necessity of its early recognition, too little stress has been placed on the possibility of this dreaded disease occurring in the relatively young. It is the purpose of this paper to call this important phase of the cancer problem to your attention.

Review of the Literature

Karsner[3] in 1909 reviewed a series of ten cases of carcinoma between the ages of ten and twenty-three, one a case of adenocarcinoma of the biliary ducts in a girl of eleven, one metastatic mucoid carcinoma of the omentum in a boy of fourteen, and one a malignant degeneration of a fibro-adenoma of the breast in a girl of nineteen. He finds the course in all these cases to be short, Lindemann reporting a case of carcinoma of the rectum who died after two weeks illness.

Fowler[4] in 1915 reported a case of adenocarcinoma of the rectum in a boy of fifteen, and called attention to the observations of French authors on two cases under ten, and eleven under twenty years. He also reported a case of mammary carcinoma in a nineteen year old girl and one in a fifteen year old boy.

Cumston[5] in 1889 called attention to the comparative frequency of carcinoma of the ovary in young women and girls; Oldhausen and Leopold each report cases in girls of twelve. Of fifty-one cases of carcinoma of the testicle reported by Ludlow and Lebert, five, or nearly ten per cent were in subjects under five years of age, and one in a boy of fourteen.

Marchoud reported a case of carcinoma of the rectum in a girl of sixteen, and Billroth three cases between the ages of eighteen and twenty. Boulogne found five cases of intestinal cancer between the ages of one and nine, and four between ten and nineteen. Rose found a carcinoma of the kidney in a subject of twenty-one.

Case Report

Present Complaint: A white girl, eighteen years old, entered Hospital May 8, 1922, for a discharging tumor in the right axilla. She gave the following history: At seven months of age she fell into a fire and the fingers of the right hand were burned completely off. On healing the hand was flexed by contractures, which would break when she attempted to extend the hand, leaving a constantly bleeding and ulcerating lesion. In the spring of 1919, when the girl was under fifteen years of age, this ulcerated area spread all over the stump, and is described by the patient as looking exactly like the present lesion in the anterior axillary fold. The arm was amputated below elbow November 7, 1919. Just one year later she noticed a small, hard, tender lump about one-half inch in diameter in the right axilla. This was freely movable and not attached to the skin. This tumor grew rapidly until February when it rup-

Read before the Medical Association of the Southeast, Hot Springs, Ark., October 16-18, 1922.

tured and drained for about one month. A short time after, the drainage started again following a fall on the shoulder. April 19th "enlarged glands" were removed, without improvement.

Physical Examination: Well developed, well nourished white girl eighteen years of age. No jaundice, no marked anemia. Head and neck not remarkable. Heart, negative. Old scar over right anterior chest wall, extending on to abdomen. Large, excavated discharging ulcer in right axilla, edges somewhat elevated and indurated. This appears to be from a mass of suppurating glands. Impaired expansion of right side, dullness and rales in right apex. Abdomen, negative. Extremities: Right arm amputated middle of upper third, stump healed, but entire stump edematous. Reflexes, negative.

Clinical Diagnosis: Tubercular Adenitis. 6/20/22. Section removed for microscopic diagnosis revealed an actively malignant spinous cell carcinoma. At this time, in spite of X-ray and radium treatment, this tumor is rapidly advancing and it is a matter of a short time until the axillary vessels will rupture and patient will die of hemeorrhage.*

From the history in this case we are perfectly justified in assuming that this girl had a well marked carcinomatous growth of the hand and wrist before her fifteenth year.

My attention was first called to this important phase of the cancer problem in the Gynecological Clinic of Dr. J. S. Hartford in 1917 when he showed a case of inoperable carcinoma of the cervix in a nineteen year old colored girl. This case advanced very rapidly and of course resulted in death in a very short time. In the last two years we have recognized some ten cases in relatively young individuals.

Case 2. White woman, age 25—Adenocarcinoma of Breast. Radical removal.

Case 3. Colored woman, age 28—Carcinoma of Cervix. Resection plus radium.

Case 4. White woman, age 26—Adenocarcinoma of Breast with metastasis to axillary nodes. X-Ray and radium.

Case 5. Colored girl, age 18—Spinous Cell Carcinoma of Cervix and Bladder. Inoperable —Death.

Case 6. White woman, age 30—Carcinoma of Uterus. Hysterectomy.

Case 7. White man, age 26—Colloid Carcinoma of Sigmoid. Colostomy,—Resection.

Case 8. White woman, aged 23—Carcinoma of Rectum. Colostomy.

Case 9. White woman, aged 20—Spinous Carcinoma of Cervix.

Case 10. White woman, aged 29—Carcinoma, Splenic Flexure of Colon.

*This patient died January 3, 1923, of exhaustion and sepsis.

During the past two years 216 cases of carcinoma have been recognized in the Clinic of the State University Hospital. Of these, ten or four and five-tenths per cent have occurred under the age of thirty, a percentage sufficiently large to justify the keenest alertness on the part of the clinician.

BIBLIOGRAPHY

1. Cancer—Taylor, Howard Canning, D. M., Lea & Febiger, 1915.
2. Treatise on Tumors—Hertzler, Arthur E., M. D. Ph. D., Lea & Febiger, 1912.
3. Karsner, H. T., Ten Cases of Carcinoma in Early Life. N. Y. M. J., 1909, XC, 1109.
4. Fowler, R. H., Carcinoma in the Young Medical Record, 1915, LXXXVII, 730.
5. Cumston, C. G., Carcinoma Under the Age of Thirty. Boston M. & S. J., 1899, CXLI, 435.

TREATMENT OF TOXEMIAS OF PREGNANCY

W. A. FOWLER, M. D., F. A. C. S.,
Oklahoma City, Okla.

Chief Clinician and Associate Professor of Obstetrics, University of Oklahoma School of Medicine; Medical Director, Oklahoma Lying-In Hospital.

THE toxemias of pregnancy may be defined as a state of disordered metabolism due essentially to pregnancy. They are expressed clinically most often by minor ailments, such as headache, vertigo, slight nausea and vomiting, despondency, etc., but occasionally by grave and even fatal affections such as pernicious vomiting of pregnancy, eclampsia and acute yellow atrophy of the liver. In their graver manifestations they are a frequent cause of foetal death, while as a cause of maternal death, they rank second only to sepsis. Their milder as well as their graver manifestations undoubtedly often result in impairment of function of vital organs and thus make a substantial contribution to the sum of obstetric morbidity.

Etiology and Pathogeny

The liver is the great chemist of the body. Besides its functions to manufacture bile, urea and glycogen, it is the great detoxicating organ of the body. What the liver cannot render nontoxic, the kidneys attempt to eliminate. In the toxemia of early pregnancy the primary breakdown seems to be in liver function. The exact cause of this is unknown and has been the subject of much speculation and investigation. That the usual metabolic processes on account of an organism so small as the ovum in the first trimester of pregnancy would be sufficient to cause hepatic break-down would seem unlikely. Edgar believes, in connection with the rapid evolution of the various organs and tissues of the body from a relatively undifferentiated matrix in early foetal life, that this rapid differentiation is accomplished by enzymo-like bodies which are generated, do their work, and

Read before the Medical Association of the Southwest, Hot Springs, Ark., October 16-18, 1922.

give way to others; and that the responsibility for this organo-genesis rests upon the liver.

In later foetal development, the metabolic strain upon the liver is relieved considerably by the actively-functioning liver of the foetus and probably by the less complex changes in development. On the other hand, the demand upon the kidneys in the usual case is greater in later pregnancy on account of the increased amount of waste products to be eliminated from the body of the growing foetus. This may account for the difference in the clinical picture between the toxemia of early and that of late pregnancy. The deleterious effects of constipation and of the ingestion of excessive quantities of food has long been recognized. The importance of infectious processes, such as those about the teeth or tonsils, appendicitis, pyelitis, cholocystitis, etc., in increasing the detoxicating and eliminating burdens to the point of hepatic and kidney insufficiency has not been give the recognition it deserves. It is my opinion that focal infections bear a very close relationship to the etiology of the toxemias of pregnancy. I have observed this point for the last several years and can say that I have not found a case of persistent toxemia which would not respond to the usual methods of treatment except those cases associated with demonstrable focal infection.

Whatever the principal and contributing etiologic factors may be, the fact of a break-down in the liver sufficiency in cases of true toxemia of early pregnancy, is, I think, pretty certainly established.

What are the results of failing hepatic sufficiency? Diminished bile-forming function results in impairment of sponification and emulsifying of fats, the fats unchanged, by enveloping the tiny food particles, interfering with the action of the digestive fluids upon the proteins, thus favoring their more free putrefaction in the intestinal tract. Diminished urea-forming function is accompanied by the presence in the blood of the chief antecedents of urea namely, ammonia and carbamic acid. Impaired glycogenic function results in imperfect gylcogen batabolism with the formation of lactic acid, which bears an important relation to fatty degeneration. Since complete combustion of fats requires the simultaneous katabolism of carbohydrates, there is also defective fat combustion with the formation of acetone bodies and the fatty acids. Diminished detoxicating function results in the presence in the blood of an increased amount of toxins as from the gastro-intestinal tract, pus foci, etc. From these facts it will be seen that in hepatic insufficiency the tendency is toward first,—acidosis, and second,—degenerative changes which may affect any organ or tissue of the body. The acidosis results in the abstraction of alkalies from the cells, lymph and blood. We may realize the vital processes affected by this diminished alkalescence when we remember that the function of respiration is dependent upon the alkalescence of the blood; that the solution of globulin in protoplasm is maintained by association with chemical bases; and that the action of ferments—digestive, circulating and intra-cellular —are determined by the reaction of their media. The accompanying table represents graphically the results that follow hepatic insufficiency resulting from the, as yet, undetermined essential factor or factors in the etiology of the toxemias of pregnancy.

Function of Liver	Results of Impairment	Tendency
Bile-forming.	Diminished saponification and emulsifying of fats with therefore increased intestinal putrefaction with development of toxins.	Acidosis and degeneration.
Urea-forming.	Increased amount of carbamic acid and ammonia in the blood.	Acidosis.
Glycogenic.	Imperfect fat katabolism. Formation of lactic acid, fatty acids and acetone bodies.	Degeneration and acidosis.
Detoxicating.	Increased toxins in the blood.	Degeneration.

Prophylaxis

The statement will go unchallenged, I believe, that toxemias of pregnancy to the point of endangering the patient's life, at least, is nearly always preventable. A very important factor in successful prophylaxis is the practice of having a careful history and physical examination as a routine for every patient as early in pregnancy as our consultation will permit. This should include, especially a careful searching for evidence of peridental or tonsillar infection, pyelitis, colitis and other chronic local infections which should be treated if present.

The diagnosis and treatment of these chronic infections by relieving the liver and kidneys of the added burden which their existence entails will, in my opinion, frequently prevent not only the discomfort of the milder cases of toxemia, but the complete functional break-down in these organs as observed in fatal cases.

The patient should have her blood pressure taken and urine examined at frequent intervals so that the signs of toxemia may be detected early, when their treatment is usually a simple and almost certain undertaking.

In my own practice, she is instructed to return every two weeks for blood-pressure and urinalysis, including both the chemical and microscopical examination. The patient should be given instructions in the hygiene of pregnancy and it is very much better if these instructions are printed or written.

So far as they concern the toxemias of pregnancy, they should include, in addition to definite instruction as to the frequency with which the patient should return to the office for examination, the following points:

1. The danger signs of toxemia, such as headache, spots before the eyes, edema, obstinate constipation, scanty urination, epigastric pains, etc., which should be signals for prompt return for examination.

2. That she should drink an abundance of liquids.

3. That she should eat a bland diet containing those foods which favor bowel movements, avoiding generally such acids as are contained in tomatoes, vinegar and asparagus, eating sparingly of meats and very salty or very greasy foods, and avoiding over-eating.

4. That she should take plenty of rest and daily exercise in the open air, stopping short of fatigue. I know that it is usually the case in country practice that the doctor is not consulted until the patient is in labor and that this excuse is given for failure to practice prenatal care. While the realization of the patient of its importance is a matter of education and requires time, the doctor who is enthusiastic and who is himself thoroughly awake to its benefits will in a few years have his patients doing just about what he thinks they ought to do in regard to prenatal care.

Active Treatment

The main indications in the treatment of toxemias of pregnancy are—first, to lessen metabolism; second,—to promote elimination: and third,—to treat the symptoms.

In the milder cases, rest in bed, a very limited diet of principally carbo-hydrates and a laxative will usually result in a prompt clearing-up of the symptoms. The important thing to remember in connection with the treatment of the mild toxemias is the danger of dallying by using half-way measures. It should be remembered that every case of toxemia is a potential fatal case of pernicious vomiting or eclampsia.

Perhaps the treatment may be best discussed by giving the routine in the average case of excessive vomiting and of threatened or actual eclampsia.

Routine for Pernicious Vomiting

1. The patient is in the hospital if at all possible.

2. A careful general history and physical examination is made if this has not already been done. I have my first patient to see in whom some cause was not present which affects the patient's general health,—bad teeth, infected tonsils or chronic constipation may be expected in practically every case.

3. The patient is put to bed and told that she will recover. We know that the psychic element is an important factor in cases of vomiting.

4. The stomach is thoroughly irrigated by giving large quantities of solution of sodium bicarbonate, and allowing the patient to vomit.

5. The patient is allowed plenty of water and is given two improved C C pills and 30 grains of sodium bicarbonate. If there is a reasonable doubt as to her ability to retain this, she is given a hypodermic of 1-4 or 1-6 grains of morphine.

6. Patient given only water and solution of bicarbonate of soda until she can retain these in sufficient amounts.

7. If patient becomes able to retain water without nausea, she is given small quantities of nourishment at frequent intervals, the diet consisting of carbohydrates, pear juice and pineapple juice.

The patient is urged to take nothing which she feels will nauseate her. She is usually given 30 grains of sodium bromide two or three times a day, sodium bicarbonate in sufficient quantities to completely neutralize the acidosis; some mild laxative each night with an enema or colonic flushing daily if necessary and morphine 1-8 to 1-4 grains at night if needed to obtain restful sleep.

Pyorrhea is appropriately treated and extraction is done in cases of peridental abscess.

In the treatment of pernicious vomiting, therapeutic abortion is sometimes necessary to save the patient's life. This should be done only in cases in which the patient can not be made to improve, but continues to grow worse notwithstanding the best treatment possible, and after consultation with a competent colleague.

The signs upon which this decision would be based are as follows: an increasing pulse rate, a diminishing blood-pressure, continuation of nausea and vomiting; continued loss of

weight and especially the development of jaundice, fever and tenderness over the liver.

Routine in Case of Eclampsia or Threatened Eclampsia

1. Patient to bed in quiet, darkened room.

2. Morphine 1-4 grain by hypodermic and 1-8 grain every hour if necessary for twitching, restlessness or convulsions, respiration not being pushed below 12 per minute.

3. Catharized specimen of urine examined and blood-pressure taken.

4. Gastric lavage with solution of sodium bicarbonate until return is clear and without mucous, after which castor oil—2 ounces, croton oil—1 drop, sodium bicarbonate—1 drachm, sodium bromide—grains 40 with a sufficient amount of water to negotiate are introduced into the stomach through the tube.

5. If blood pressure is above 175, and pulse full and regular, enough blood is drawn off from a vein to lower the blood pressure to 150.

6. Colonic irrigation with 6 or 7 gallons of tap-water. 30 grains of bromide are given every 4 hours if the patient is at all nervous. No food is given for three or four days even in favorable cases, after which carbohydrates and fruit juices are given. If the patient is not very oedematous and the output of urine is good, the colonic irrigation may be repeated Q8H, but in the presence of edema and a scanty output of urine, we should assume that there is an edema of the kidneys and the throwing of large amounts of fluids into the circulation by colonic irrigation or by the giving of excessive fluids per mouth may increase the edema of the kidneys and result in the death of the patient. In these cases, it is better to limit the intake of fluids in proportion to the output and to resort to sweating by means of the hotpack in order to remove the edema.

The question of operative interference is raised in nearly every consultation in cases of eclampsia. It should be remembered that these patients are poor operative risks; that in most cases the patient will go into labor and deliver without any interference on our part and that the shock from a normal labor is very much less than in cases of accouchement force'.

On the other hand, if our patient is growing worse in spite of careful treatment, it is better to accept the shock of delivery before she has been further weakened by the condition thus growing worse. In these cases, it is better to induce labor by the simplest manner such as packing the cervix and vagina, and wait for labor pains to complete dilatation, the second stage being shortened by forceps after the head is well down. During labor, the patient should be given enough morphine to control pain and restlessness.

The important thing to keep in mind in considering the treatment of the toxemias of pregnancy is the pathogeny which develops in these cases, and the man who does this will not be chasing the will o' wisps in the form of short-cut so-called specifics which recur at regular intervals.

(For the idea of the pathogeny as set forth in this paper the writer is indebted principally to Ewing's Monogram on Acidosis published in the November and December numbers of Archives of Internal Medicine, 1908.)

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ILEUS

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IN its broadest application ileus is best described as any condition resulting in coprostasis. For practical purposes it is classified as dynamic, adynamic and mechanical.

Dynamic Ileus is a spasmodic condition of some portion of the intestinal tract resulting in obstruction, very rare in occurrence and seen only in lead and tyrotoxicon poisoning, but of sufficient importance to demand recognition.

Adynamic Ileus is a paralytic condition of the intestinal tract. It is the most frequent in occurrence and is the result of infection and toxemia or interference with the nerve or blood supply to the gut.

The toxemias producing it in order of their importance are, first, peritonitis from any cause, either local or general, and, since appendicitis and pelvic infection are first in order of frequency, they are first in order of cause. Ten years ago I made the statement to one of my colleagues that peritonitis never caused death in any patient unless it was complicated by ileus, and I think that this is now accepted by all surgeons.

In my opinion the second toxemia in importance from a surgical standpoint is ether anesthesia. Pneumonia, general septicemias, uremia and toxemias from other drugs may also be responsible for the condition.

As a result of interference with the nerve supply to the gut, it occurs directly from cord and afferent nerve affection and most frequently from injury to the gut or mesentery from mauling of the viscera during intra abdominal operations.

Reflexly from strangulated or compressed gut, omentum, ovary or other viscera, hepatic or renal calculi, gun shot or puncture wounds of the chest or neck, pneumonia pleurisies and pain.

As the result of interference with the blood supply to the gut, it is produced by embolism, thrombosis and tortion.

Read at Annual Meeting of the Kansas Medical Society, Topeka, May 3 and 4, 1922.

Mechanical ileus is a positive pathological lesion and is produced, first by hernias; second, bands of adhesions and masses of adhesions from infections; third, intussuception and volvulus; fourth, cicatrical contractions; fifth, new growths and diverticuli; sixth, foreign bodies and impactions.

In presenting the above classification we realize that it, as other classifications, carries with it a certain per cent of error, as a cause classified under one head may be a factor in any particular case in common with a cause classified under another head, and the different forms of ileus are so closely related that one may become a part of the other to such an extent that it is occasionally impossible to say just when the paralysis becomes a result of the obstruction, or the obstruction the result of the paralysis. However, if we obtain a thorough understanding of the above classification, we can realize all the possibilities of an ileus and are then armed with the knowledge essential to its proper diagnosis and treatment.

The diagnosis which deferentiates one form of ileus from its neighbor as well as the various other conditions with which it may be confused is dependent upon a thorough knowledge of the underlying pathology, which in turn naturally suggests the treatment.

As we run we read, and we at once see that the practical application of the subject resolves itself in dealing with the paralytic and mechanical forms, therefore, we will confine our remarks to them.

The pathology and symptoms of these two conditions bear many things in common and each may become a part of the other, still a careful analysis will do much to clear our vision.

Pain is a prominent symptom in both forms, occurs at the outset as the first symptom in mechanical ileus, is intermittent in character, produced by increased peristalsis of the gut above the obstruction and is gradually diminished as the gut gives away to distention from paralysis. While in paralytic ileus it occurs late or is entirely absent, especially where the progress of the disease is slow, as the result of distention and peritoneal irritation and is steady in character.

Vomiting is the next symptom in importance and onset in mechanical ileus, becomes progressively worse as the disease advances, at first of stomach content, light in color, rapidly becoming darker and more putrid to fecal, and is expulsive in character. We halt with a word of caution here as the surgeon who relies on diagnosing and relieving his patient when fecal vomiting is reached will send him from the operating room to the morgue. In paralytic ileus, vomiting occurs later, is the result of distention, a sort of an overflowing, and is gulping in character.

Distention is the third symptom of importance, prominent in both forms, occurs late in mechanical, is confined to the portion of the gut above the obstruction and is the result, not the cause, of the obstruction. While in paralytic it occurs at the outset as the first symptom, is general in extent and figuratively speaking is the cause, not the result, of the obstruction.

Temperature is not high in either form but usually occurs earlier and runs a trifle higher in the paralytic form.

Tumor Mass and Localized Distention can occasionally be outlined in the mechanical form, never in the paralytic.

Peristaltic Wave can occasionally be seen and always heard in the mechanical form, while the abdomen is perfectly quiet in the paralytic.

The Course of the Disease and its general effects on the patient's physical condition are more severe in the mechanical variety, but are governed entirely by the pathology involved. Where there is a complete obstruction the symptoms and course of the disease are more prominent and rapid. Again when the obstruction is sudden in onset the symptoms are greatly aggravated.

When strangulation is added to the obstruction the condition assumes a double liability. A patient may survive a partial obstruction for some time and a complete obstruction for several days, but when complicated by strangulation the scene changes. A fair rule is: That a gut with complete obstruction and strangulation if relieved within the first twelve hours will survive; from twelve to eighteen hours, resection offers a good chance for recovery, from eighteen to twenty-four hours a fair chance; from twenty-four to thirty hours, very little chance, and after thirty hours practically no chance, resection or no resection.

In the Paralytic Variety the underlying cause, the severity in onset, and the rapidity in progress govern the course of the disease.

Treatments: Mechanical ileus knows but one master, that is surgery, and the sooner the patient is given the advantage of a well directed operation the better are his chances for recovery.

In paralytic ileus we are given a little more grace and it is permissible to try a few of our favorite stunts, but nevertheless, we should at all times be mindful that this is a serious condition, and that procrastination may be an expensive pastime to our patient.

The substitution of local, gas oxygen and spinal anesthesia for ether, together with careful manipulation during operation, and efficient drainage of all infected cavities is the foreword

in its prevention. In selected cases the judicious uses of small doses of morphine at regular intervals is permissible as a means to ward off the condition, but should not be used when once the disease has gained a substantial foothold, and when we say morphine in ileus, we must remember that we are speaking of paralytic ileus, as it has no place in the treatment of mechanical ileus, and is only permissible here as a preoperative medication.

Gastric lavage and enemas are indispensible and of great value. Here again we may extend our ingenuity in trying out various kinds.

The hypodermic use of eserine and pituitrin have gained recognition and are occasionally beneficial.

If after a reasonable effort we find the disease persisting or advancing and the patient slipping we should not hesitate, but give them relief by doing an enterostomy. This should be done under local anesthesia after the method of a Witzel Gastrostomy.

In all forms of ileus the patient rapidly becomes toxic, dehydrated and acid, and should be protected as far as possible against these complications.—Kansas Medical Journal.

THE "HIGH FEVER" GIRL

Two things impressed me very strongly about this young lady's altitudinous fever. She must have had the doctor hypnotized during the readings. He seemed powerless to make a check of his findings. He had the axilla and the groin 'n' ev'ry thing! It was so silly!

What is done when the thermometer is withdrawn and it registers 95? Why, you "try it again" and watch next time that the yap keeps the mouth shut!

I tell you she had him locoed! Twenty-one days he tried to take a reading and didn't know it was loaded!

I can see them: a very pretty girl, pale and rosy cheeks, hair curled and beautiful, propped on pillows, eyes dancing, and soulful; smile entrancing, winning, consuming; voice melting, consuming; temperature beautiful and consuming.

The doctor, shy, decorous; absorbed in his professional duties, blind to love, 'n' ev'rything, oblivious to the fires of passion; very busy rushing to the store for more thermometers, and consumed with a desire to put the fire out.

The other thing about the close of this young lady's case was that the cults beheld her afar off being in torment, sent telegrams and letters and offers to come to her and dip the tip of the fingers in water and cool the tongue and cure the fever, and would pay her good money and plenty of it, if she would give them the credit for curing her. Ye gods! 'N' ev'rything. Propaganda- Vile, vicious, vigin tinormal.

H. N. J.

THE EVOLUTION QF THE STATIC MODALITIES AND THEIR APPLICATION TO THERAPEUTICS*

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STATIC electricity was known as frictional electricity by the ancients from the fact that the charge from the early machines was generated by friction. The term "static" or "statical" applies to electricity at rest as stored up and held in a Leyden jar or on the fields of a Holtz machine. No other electric current has greater, if as great, kinetic—actively moving—properties as the static current when discharged. The air seems ionized to this form of electricity, as it does, from its source as no charge of equal potential does from other apparatus.

The earliest reference to frictional electricity was made by Thales, who was born 691 years B. C., who, by rubbing amber, then known as "electron," produced electrical sparks. This is the first reference made to what we designate as "static electricity." "Electron," upon which the friction was made, originated the name by which electricity came to be known. Now in this age, with the developments of electrical science, the word "electron" in the original term is recognized as representing the unit of electricity as well as of matter.

Otto Guericke made the first electrical friction machine in 1670. This apparatus was made in the form of a sphere, and when friction was exerted with a proper material, as it revolved electrical sparks were discharged.

It was not until the discovery of the Leyden jars by Von Kleist in 1745 that the demonstration of the property of accumulation or condensation of an electrical charge was recognized, or that the static property was established. Then by charging the Leyden jars sufficient energy was accumulated and stored from friction machines to make it possible to discharge a spark of adequate length for marked therapeutic effects from the machines of that time.

In 1750 Jallabert, Professor of Experimental Philosophy in Geneva, published a report in twelve chapters on the medical uses of the static spark and static insulation. This manuscript was discovered in the Archives in Geneva by Dr. P. Ledame in 1885. Jallabert produced electrical sparks from a friction machine with the intervention of Leyden jars. His apparatus must have been of marked capacity to have demonstrated his early experiments. He

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discovered that the static administrations increased the pulse rate as well as the temperature of the patient so treated. He also claimed that the electrical bath was valuable in cases of amenorrhea, and that an increased secretion of sweat and urine was induced. Jallabert also demonstrated that paralyzed muscles treated by electrical sparks responded with a convulsive movement of individual muscles wherever the sparks were applied. This was the first demonstration that the static current induces independent muscular contractions, independent of the neuro-muscular mechanism. It is interesting to note this here as the first demonstration of what has been a contention in these later days—a property or effect which explains the peculiar efficiency of the static modalities in effecting tissue drainage with the removal of local stasis.

The use of powerful static discharges was later strenuously opposed by Abbe Nollet, himself an early exponent of their use. This was occasioned by superstitions which were aroused by their curative effects, which were not then recognized to be rational or demonstrable, but were attributed to witchcraft.

The Lane electrometer, was one of the later evolutions published by Cavallo in 1768. Carvallo also observed the discharge of the electrical current from wooden points which was the forerunner of the well known static "brush discharge." These observations were made by him from experimental studies without reference to previous contributions to the subject.

Benjamin Franklin and John Westly, scientific laymen, subsequently became ardent advocates of the therapeutic use of the static sparks. The latter is quoted by Turrell as having made the following statement,[2] which is quite apropos of the gentlemen of the faculty at this later day. He stated that:*

"Before I conclude, I would beg one thing (if it be not too great a favor) from the gentlemen of the faculty, and indeed all who desire health and freedom from pain, either for themselves or their neighbors. It is that they would none of them condemn they know not what; that they would hear the cause before they pronounce sentence; that they would not pronounce pre-emptorily against electricity while they know little or nothing about it. Rather let every candid man take a little pains to understand the question before he determines it. Let him for two or three weeks (at least) try it himself in the above named disorders. And then his own senses will show him whether it is a mere plaything or the noblest medicine yet known to the world."

*"Primitive Physic," ran through many editions. In it he adopts very different attitude to the medical profession than in the other book on "The Desideratum: or Electricity Made Plain and Useful, by a Lover of Mankind," which he wrote in 1759.

The advanced ideas of these scientific laymen who had been able to relieve human suffering with the static sparks were not appreciated by the medical men. At this time, however, the rationale of the action of the static sparks had not been demonstrated. Their use was empiric, and were even to the time that Dr. Morton's paper was read at the meeting of this Association in September, 1900.[3]

The Holtz and Topeler-Holtz induction machines were not invented until 1865, after the plan of the electropherous was discovered by Varley in 1860. The electropherous demonstrated that a glass disc revolving parallel and in proximity to a charged field generates a constant charge. The introduction of these types of apparatus and later of the Wimshurst made possible the production of currents in greater quantity and voltage than was possible with the friction machines.

At the Saltpetrie in 1879 this improved apparatus was used and a new interest was aroused in its employment by scientific physicians.

In 1879 Dr. Wm. J. Morton became interested in electrotherapeutic apparatus, and made an earnest study of the various methods employed in Charcot's clinic by Vigoreux. I believe, however, that in the Charcot Clinic not much was evolved farther than that Dr. Morton's investigations led to the introduction in this country of improved apparatus, if we are to judge from the present status in that clinic.

When Dr. Worthington S. Russell and I visited the Charcot clinic in 1911 it was under Dr. Zimmerman's management. We found in operation one Wimshurst machine with two revolving plates five feet in diameter. The plates were revolved in a closed case, and, as I have previously reported, static electricity as employed in that clinic at that time was a remarkable compromise of the modern established point of view and established therapeutics of electricity.

In a large outer waiting room were hundreds of poor patients who were waiting for relief. These were marched into the static room about twenty at a time and placed upon as many insulated platforms which were connected in two rows with one pole of the machine.

A nurse with a metal electrode in hand which was attached to a ground chain then rubbed a few strokes, administering friction sparks, on the backs of each of those on one row of the platforms, and upon the knees of those on the other row, after which the patients filed out and another group took their places. This very unscientific procedure and unaccountable in this once famous clinic explains the skepticism of our visiting neurologists who go there for enlightenment and, perchance

ike their cue from what is done with static ectricity there.

When Prof. Morton returned from Charcot's inic in 1879, he brought back with him two foltz machines and then instituted a series f experiments along more rational lines. In 881 he published his first paper on static in-uced currents.[4]

In a paper read before the American Elec-otherapeutic Association in New York City 1 September, 1900, Dr. Morton made the fol-owing observations with reference to the evo-ition of the static modalities. Quotations om this paper will best give the origin or the volution of the Morton Currents.[5]

"Our first step in classification is a simple ne for the general practice of electrical treat-ient from electro-static machines divides it-elf into two epochs, namely:

"1. The epoch of the administration of parks, breeze, and of the electric bath on the isulated platform (1734 to 1881) (direct).

"2. The epoch of the administration, in ad-ition to the above, of currents whose deter-ining characteristic of production is a spark-ap and a series of sparks passing at the spark-ap, the resulting current being utilized at ome other part of the circuit (1881 to the pres-nt time). (indirect).

"These two epochs may be otherwise con-isely stated as (1) the epoch of the single park, which produces the instantaneous, tran-ient, single current, or electrical impulse; and 2) the epoch of the series of sparks passing ontinuously at a spark-gap, producing a con-inuous effect and constituting sustained oscil-atory currents. In brief: (1) the transient-urrent epoch—single sparks, direct and (2) he oscillatory-current epoch-series of sparks, ndirect. The first epoch began in 1734, when he Abbe Nollet administered the first spark or a therapeutic purpose; the second began in 881, when the writer read his first[6] paper be-ore the New York Academy of Medicine, de-cribing A New Induction Current in Static Electricity, namely: the static induced current, upplemented, in 1891,[7] by a much more ex-ended statement of the same subject.

"Guided by these considerations, I suggest hat we may, with advantage, divide the art of ranklinization, a general term now familiar, nto:

"(1) Single spark and convective discharge, lirect franklinization—disruptive and convect-ve discharge, direct. (2) Series spark, indirect ranklinization—sustained oscillatory currents, ndirect.

"It is to the second epoch—namely: that of series spark, indirect franklinization—that I will especially ask your attention.

Series Sparks, Indirect Franklinization, or Sustained Oscillatory Currents.

"My attention was first drawn to producing currents, in 1879, on my return from Paris from a course of study at Professor Charcot's clinic, when I brought home with me two large influence machines and appurtenances and what books, old and new, on the subject I could find. I entered enthusiastically into a study—physical, physiological and medical—of static electricity, and in 1881 published my first paper, already referred to. I soon observed that a series of sparks passing at any remote part of a circuit in which the patient was placed produced a continuous muscular contraction, namely, physiological tenanus in the patient. The observation surprised me very much. I turned to my copies of Mauduyt, Cavallo, Wilkenson, Adams, Abbe Nollet, Abbe Bertholot and others, as well as to more modern books, but could find no allusion to such an effect. Nowhere was a continuous muscular contraction alluded to, but reference was made only to the transient, instantaneous, and single contraction due to the administration of single spark: and nowhere was a series of sparks of passing at a spark-gap alluded to but only a single spark, regulated as to force and length and producing a simple one, but it was novel, and its practice produced an important and new effect * * *

"I found, upon reference to the copious literature in old books referring to the Lane electrometer and similar electrostatic pieces of apparatus, not the slightest reference to a series of sparks continuously passing at the spark-gap and setting up a current of any sort at some other point in the circuit; on the contrary, I found a most explicit statement of the purpose of the Lane electrometer, and this to the effect that it was employed, to quote from Mauduyt and others, 'to furnish a sure and fixed measure of the force of the shocks.'

"In December, 1890, being still interested in the subject of these currents, and having experimented with them further, I read a long paper before the New York Neurological Society, published in the Medical Record of January 4, 1891. This paper, illustrated by numerous diagrams and illustrations, explicitly described the various electrical arrangements and principles involved, and referred to the peculiar physiological action of such currents * * *

"Prior to my publications in 1881 and January, 1881, nothing had yet been published about Tesla currents and Tesla effects, d'Arsonval currents and d'Arsonval effects, or of the similar work of Professor Thomson. My own paper was the pioneer in this direction of high

potential currents. I had no help from their publications.

"The combinations of spark-gap and series of passing sparks in an electrostatic machine may also be utilized to produce the 'electric wave-current.' A description of this method has appeared in the Bulletin Official de la Societe Francaise d'Electro Therapie, January et February, 1899, and in the New York Electrical Engineer of March 2, 1899, and also later on, a year ago, at the Washington meeting of our Association, in a paper on this subject by Dr. Wm. Benham Snow. It was at first termed 'wave-current' because its circuit produced Hertzian waves. The current is obviously oscillatory.

"A modification of this method was shown illustrating a metallic foot-plate, upon which the patient's bare feet rest, is connected by a rheophore to an extraneous and independent insulated capacity. I generally employ for this attachment a zinc sheet of metal two feet by five feet in size, supported upon insulated tripod legs. Any other metallic electrode in any other situation upon the patient's person may be substituted for the metallic foot-plate."

It was during the summer of 1898 that I began my work in the clinic of Dr. Morton, in the New York Post Graduate Hospital and Medical School, and had charge of his office and clinic during the summer of that year. One private patient, whom I had under observation at that time received the static wave current, then known as the "side thrust." This was given during periods of humidity with applications made to the spine through a metal electrode in contact with the skin, three times weekly. This patient, a Southern gentleman, when leaving the city took occasion to express to me his great gratitude for the beneficial results obtained from the application of this current. This, I believe, was the first clinical observation as showing the physiological, and constitutional effect of what was later known as the static wave current, and impressed me profoundly with its importance. This patient received treatment for about one-half hour each time during the months of July and August. When Dr. Morton returned I called his attention to this case and suggested that we use it on cases of torticolis and other conditions instead of the sinusoidal current which we were then employing. I also had begun using it at my own office and at the clinic at the Post Graduate with gratifying results.

In his presidential address delivered before the American Electrotherapeutic Association in Philadelphia, Pa., in September, 1911, Dr. deKraft said:

"The static wave current was practiced by Dr. Morton for several years and was published at the solicitation of Dr. William Benham Snow in 1899, and again on April 21, 1900, in the Medical Record. Dr. Snow recognized the great therapeutic value of the wave current in 1899 in relieving spasm, and in softening inflamed and swollen tissues through removal of local stasis * * *"

I published my first paper on the static wave current in the Medical Record of March 3, 1899, and read another paper on the Treatment of Rheumatoid Arthritis before the American Electrotherapeutic Association at Washington, D. C., on September 20th, 1899, in which I called attention to its value in the treatment of Still's disease, Rheumatoid Arthritis and other Inflammatory Joint Conditions. The mention of the current aroused a great deal of interest on this occasion and started a controversy as to its novelty. This controversy was continued at the subsequent meeting in 1900 and a committee composed of Dr. Herdman, Mr. William J. Jenks, and Prof. Kennelly of Harvard was appointed to determine whether Dr. Morton could be credited with the claims of having discovered what are now known as the static induced and static wave currents. The following year the committee confirmed the claim of Dr. Morton.

The opportunity afforded me in the clinic of the New York Post Graduate College and Hospital, and in my own office made it possible for me to make early investigations as to the effects and value of the wave current, now recognized to be the most valuable modality—and of the therapeutic effects of the other static modalities.

Until the year 1900 everything that had been demonstrated with the static modalities had been along empiric lines as is shown in the following paragraph.

During the previous winter at a meeting of the Clinical Society of the New York Post Graduate College and Hospital Dr. William J. Morton demonstrated the successful treatment of brachial neuritis with the static sparks, and had used the expression of "firing the spark directly into the tender spots." For that statement he was criticized by Dr. Dana and other men who were present at the meeting, when he offered no explanation as to the reason for the results obtained, further than the clinical evidence and results.

We had learned very early that painful conditions were relieved by the static wave current as they had been by the static sparks, but how and why was a conundrum until the summer of 1900 when it was observed by me that removal of induration and accompanying swelling—tissue drainage—with the relief of pain, tenderness and muscular tension was effected with the static modalities. It was then that I first appreciated that the static administrations were rational procedures; and it was subse-

ıently observed in every instance in which filtration was present in excess, that the atic modalities depleted and softened swollen ssues and coincidentally relieved muscular nsion and lessened the pain and tenderness. This effect was so uniformly observed from e treatment of infiltrated conditions to hich the static modalities were applied, that e association of pain and pressure, which ere relieved, seemed to be constant.

The successful treatment of the arthroses ıd neuroses and other inflammatory condi-ɔns not complicated by infection or malig-ıncy by the static modalities, with the relief swelling, infiltration and local tension, is ıw familiar to hundreds of physicians who e employing static electricity scientifically. Why does static electricity accomplish what nnot be accomplished with the other elec-ical modalities I will explain. That it does ere are hundreds of physicians to attest. It ıs always been difficult to convince those ho are not familiar with electrotherapeutic easures generally, that static electricity fills e unique role which it does, until they have :come familiar with the methods and the clin-al results obtained. These have established ; prestige beyond cavail.

No other form of electricity is generated ıder anything like the same conditions as e static current, and, electricity from no her source possesses to the same extent its ıique qualities or characteristics which are:) high voltage relative to an infinitely small ıperage, (2) the property of diffusion derived ɔm the preceding qualities, and (3) ionization the air to these currents. For no other cur-nts of equal potential, and far greater am-rage gets away through the air and flows er nonconducting material, as wooden plat-rms and chairs, which are absolute noncon-ıctors to other electric currents.

Furthermore, the static current is a constant rrent, flowing from the two poles, positive d negative respectively. As the constant or lvanic current passes, the positive flowing ɔm one pole and the negative from the other, does the static. When the current is dis-arging across a short spark-gap the discharge ɔm either side is oscillatory as shown by the cillascope, but when the spark-gap is long the scharge from either side is directional. The nger spark-gap discharges of the wave cur-nt are generally directional.

It is a recogniezd fact as shown by all text ɔoks of physiology that the constant current hen interrupted will stimulate dead muscular lls to contract when they have not undergone o great degeneration, but with the nervous ement destroyed.

The static current is a constant or directional ırrent of high potential, and has practically the same effect upon the muscular cells beneath layers of skin and fat; whereas the low volt galvanic current is only effective when applied directly to the muscle tissue.

The static current thus produces independent cell contraction of the elastic and muscular tissues of the body independent of the neuro-muscular relations. This is further demonstrated by the responses of paralyzed muscles to the application of static sparks.

These deductions form the basis upon which we have worked out many problems in therapeutics; most of them having been evolved in our own offices and clinics as I will show.

Exopthalmic goiter: The following case report,[9] a case of exopthalmic goiter, treated in my clinic at the Post Graduate Hospital in 1899, was one in which the symptoms were characteristic in every particular as follows:

"Miss A., aged twenty-three, came to my clinic with a history dating from two years previous. The goiter, while marked, was not as pronounced as in many cases. The eyes were very prominent, and the pulse 160. The dysponea was very marked and anemia pronounced. As the patient could not receive daily treatment at the clinic, I treated her at my office. Constitutional treatment was given, employing a long spinal electrode for fifteen minutes, and ten minutes' application of an electrode covering the thyroid.

"The result was marked from the first. Before the end of the second week the pulse was constantly below ninety, and the dysponea had disappeared. Her general health improved, and the enlargement of the thyroid was less marked. At this time we began treating the eyes in the hope of making the deformity less prominent. Metal electrodes were applied over the closed lids for five minutes daily. The treatment was continued off and on for one year, during which time her general health became normal, the goiter less prominent, the heart complication entirely disappearing, and there was some improvement in the appearance of the eyes. There was no recurrence in this case, and no return of the heart complication."

This case demonstrated beyond question, as no other treatment was given, that the static current produced clinical results from effects not only upon the thyroid, but also upon the spinal and sympathetic nervous centers. The result was permanent.

The results in this case gave me the foundation for the indications pointed out in my papers,[10] since published, and demonstrated the fact that the static current when used alone or with the X-ray in the treatment of exopthalmic goiter is successful. Cases have been reported as successfully treated by the static wave current by Dr. Ludwig Brustad[11] read before the American Electrotherapeutic Association, confirming the indications the static wave current I believe should always be employed, at least as a part of the treatment of this condition.

Paralytic mydriasis: In a paper reported by me is the report of a case of paralytic mydriasis.[12]

"Mr. S., aged twenty-seven, paralytic mydriasis. Under treatment in the eye clinic for two weeks. Es-

serin caused partial contraction of the iris, but produced painful sensation within the eye and pain in the head on the same side. The case had made no improvement during two weeks of treatment. A metal electrode was placed over the closed lid of the affected eye and held in position by the patient's hand. The grounding chain was removed and the wave current, thus modified, with a spark-gap regulated to the comfort of the patient, was administered for ten minutes daily. After the first treatment there was marked improvement, and at the end of the three weeks, the eye, tested in the direct rays of the sun, was normal."

This case was referred to me by Dr. William Oliver Moore and was directed to my office. In this case there was no recurrence.

Bell's Palsy: In the Journal of Ophthalmology, Otology and Larngology[13] I reported the first case of Bell's palsy treated by the static wave current, which has been successful in all subsequent cases of Bell's palsy in our records, and is the method I believe par excellence for the treatment of these cases.

"Mrs. M. came to my clinic suffering from Bell's palsy of two week's standing. The involved area included the right side of the face to the median line of the chin and forehead. The secretion of the lachrymal gland had been absent since the attack. The surface of the conjunctiva was dry, and the eyeball painful, and the lids were in the characteristic condition.

"A thin sheet of block tin was fitted to the affected area and secured by a bandage, the closed eye being covered, and the wave current was administered for ten to fifteen minutes daily. The length of the spark-gap was regulated to the toleration of the patient (never to produce discomfort, and did not exceed one-quarter inch. After the second treatment the secretion was considerable, and at the end of one week normal. The progress of improvement was otherwise satisfactory, and at the end of two months the features were normal."

Tic-doulereaux: In the spring of 1899, Mr. A., suffering from an acute and agonizing case of tic-doulereaux was referred to me by his dentist, Dr. Ash, of this city. The first treatment was with friction sparks and small sparks which gave temporary relief. When I came to my office the next day I found him pacing up and down the reception room in agony. I then adjusted a soft metal electrode to his face, and administered the static wave current as in the case of Bell's palsy. This relieved him, and in three days he was cured.

I had not felt certain that the diagnosis of this case was correct until in the fall of 1901 the following case was referred to me by Dr. Herman Grad. Mrs. S., the sister of two eminent physicians, had been suffering for ten days with a most agonizing attack of tic-doulereaux. We treated her with the metal electrode applied to her face for twenty minutes by employing a one-half-inch spark-gap. She went home after the first treatment and slept five hours, the first sleep she had had in ten days. In twelve days she was discharged as cured and the result was permanent.

These two cases were the first cases of tic-doulereaux treated by this method, and established it with us as the choice of methods and has been successful in all early cases in which there was no involvement of the ganglia.

Still's Disease: In the spring of 1899 the first case of Still's disease came under my observation and was treated at the Post Graduate Hospital. This case[14] was reported as follows:

"L. R. S., aged 8½ years. Family history nevative. When he was four years of age he was attacked and most of the larger joints were involved. He grew steadily worse. He was taken to experts and treatment actively pursued. Nine months were spent in Bellevue Hospital. Hot air, sulphur-baths, and massage had been systematically employed, and the patient had grown steadily worse.

"On June 20th the patient was presented for examination. His head was rigid in a flexed position, and painful when moved. His right hip was disarticulated and knees were in close apposition. The joints of the neck, elbows, wrists, hips and ankles, fingers and toes were all stiff and very painful on slight motion. Digestion and appetite good and bowels regular. Pulse, 120. Temperature, 99.8°.

"Urinary analysis—specific gravity, 1.030. Alkaline. Distinct ring of albumin. Pus and amorphous deposit.

"Treatment—applied Morton wave current to knees, elbows, and neck, employing block-tin plates. Treatments were given daily. Spark-gap of from two to four inches was used during each sitting, which lasted from ten to twenty minutes.

"June 24th (fourth treatment). Knees, hands, elbows, and neck treated to date. Pain and swelling of joints treated has subsided and range of motion of joints is increasing.

"June 26th. Joints previously treated now entirely free form pain on motion and swelling has subsided. Today treated left hip, knee, and ankle for the first time.

"June 30th. Treated all affected joints. All those treated previously are free from pain and tenderness, while the right knee, hip, and ankle are painful.

"By thus taking them in series we demonstrate that to the treatment is due the relief. Today he holds his head nearly upright.

"July 3rd. All joints except fingers and toes are free from pain and swelling.

"July 5th. Before treatment the movements of the hip joints were greaty improved and entirely free from pain. After treatment could separate knees three inches.

"July 18th. Great improvement in neck. Absolutely no pain in body on manipulation.

"Up to present time there has been no return of pain or tenderness. There is an increased range of motion in all joints. Improvement, however, has not been as marked as during the earlier weeks of treatment, on account of irregularity of treatment, owing to summer humidity.

"This case has been treated entirely by the Morton wave current, as, from the youth of the patient, it was found impossible to combine it with sparks, which add much to the successful treatment of all cases of Still's disease."

In the fall of 1902 another case of this affection was referred to me by Dr. Royal Whitman from the New York Hospital of Ruptured and Crippled. I always considered that Dr. Whitman sent the case to me to be rid of it, he having had it under observation for more than a year without improvement. However, it was a Godsend to the child.[15] This case was treated by applying the static wave current to all the affected joints. No other treatment whatever

being administered. After six weeks applications, at first daily, and then on alternate days, the child was entirely cured, and there has been no recurrence of the trouble since.

I had the satisfaction of exhibiting this case at the meeting of the New York Electrotherapeutic Society in the spring of 1922. Now a young woman of 21 years in good health. These were the first cases of Still's disease so treated.

Traumatic Arthritis: In the spring of 1899 I treated the first case[16] of traumatic arthritis with the static wave current and static sparks, the result marking a new method for the treatment of traumatic synovitis.

"Mr. F. S., aged 50, leather manufacturer. April 24, 1899. Family history good, previous history always well. Present trouble began about December 15th. Had been working very hard; business required him to run up and down stairs very often. Both knees began to feel heavy. In getting off a Broadway car there was a click, as of two joint-surfaces coming suddenly together. Before reaching the sidewalk it was repeated, and occurred six times in walking a block * * *.

"One week later, after giving the joint a slight strain, he was seized with severe pain and obliged to give up. Knee became swollen, with marked point of tenderness over the internal condyle * * *.

"Case was diagnosed as rheumatism, and patient was ordered to bed on rigid diet, meats excluded, and massage was administered by a professional. After three weeks patient was no better, but insisted upon getting up, after which he went about on crutches. On examination, the joint was found almost rigid at an angle of 130° when flexed, having a range of motion of not more than an arc of 6 inches, and perfectly rigid beyond this point. There was slight swelling of the joints, and slight pain on motion. Pain was only acute at time of outset.

"Treatment began on April 24th. Electrostatic sparks and the wave current were applied to the joint and static friction massage to the muscles of the legs. Patient felt decidedly less swollen. He was able to use his foot more, and was without pain.

"After the second treatment he could straighten the limb nearly to normal and moved about without any pain. On the fourth day of treatment he reported that he had suffered no pain during the preceding day. The knee became slightly swollen, but the swelling entirely disappeared during the following night. He moved about with the support of a cane for the first time in six weeks and was able to go up and down stairs without his crutches. After six treatments the knee was so improved that for the first time in four months he put on his own stockings. He was able at this time to flex his leg sufficiently to discharge his cab and to ride upon a street car.

"May 3d. Came for the first time without his crutch, and left the office without his cane. Could flex his leg at a right angle. Is gaining strength rapidly.

"May 15th. Has had no treatment for four days, but has gained steadily until he can now straighten the limb and flex it to an angle of 75°. He suffered slight pain in both knees. Patient also complains of slight affection in shoulder and arm, having a clicking sensation on motion.

"May 31st. Patient, having continued treatment three times weekly, has improved until he goes up and down stairs naturally. He suffers no pain, but is still unable to flex his limb to quite the normal extent.

"July 11th. During June the patient took treatments and continued to improve. He walked without any cane, using one limb as freely as the other. After some business annoyances, he had a relapse. Active treatment employing the metallic plate electrodes with the wave current sparks, gave relief as usual. After three days' consecutive treatment in this manner the patient was completely relieved, since which he has had no treatment to this day. Was interviewed in September, and was found in his normal health, having full use of both limbs."

Sciatic Neuritis: In the spring of 1899 I treated the first case of sciatica with the static wave current. The patient, Mr. B., an ex-mayor of Brooklyn, came to my office complaining of a sciatic neuritis from which he had suffered for several days, not having slept for the previous two or three nights. I placed an electrode over the usual site of uncomplicated sciatic neuritis—where the nerve emerges from the pelvis. The current was then turned on for twenty minutes with gradual lengthening of the spark-gap as it could be tolerated. He returned to the office the next morning and reported that he had had no pain.

After having had the success that I had with tic-doulereaux with the additional evidence of success in the treatment of other local inflammatory conditions, I was gratified with additional evidence. This was the first case of sciatica treated with the static wave current. At the meeting of the American Electrotherapeutic Association in 1900 in a paper published in the transactions[17] of that year I reported the cure of ten cases of acute sciatica by this method of treatment—all of the cases having been cured in less than ten days. Records were kept of seventy-five acute cases, every one of which had been promptly cured, establishing without question the indication for the static modalities in these cases.

"Prostatitis: Mr. G., aged 65 years. On April 10, 1901, the patient came to me stating that for two years he had suffered from increasing frequency of micturition until it had become intolerable. I advised him to see a specialist, but he returned after two weeks stating that they did him no good and that if I would not do something to relieve him he would take his own life.

Examination per rectum discovered a large boggy prostate gland. I made provision for him to lay on his side on the insulated platform of our static machine and inserted a metal electrode in such a manner that it lay against the gland, the patient holding it in position with his hand on the insulated handle. The static wave current was given for 20 minutes. This was repeated daily and improvement was marked from the first and within one month the cure was complete.

This patient lived to be 76 years of age without recurrence. This was the first case of prostatitis treated in this way, and hundreds of cases of sufferers have been relieved since by myself, my students, and others who have become familiar with the method.

I consider this and the treatment of dysmenorrhea and subinvolution by the same method the most important discoveries during my career as a physician.

Poliomyelitis: In the month of May, 1901, Dr. Mary Putman Jacob requested me to treat

a poor child that had been completely paralyzed in the lower extremities for seven weeks. The case was reported in 1904.[18]

"The case was reported by the writer in a paper read before the Post-Graduate Clinical Society of the New York Post-Graduate Medical School, entitled 'The Electro-Static Treatment of Some Forms of Paralysis.' A child 13 months of age, after six weeks' treatment in the clinic of an able neurologist in New York, was referred to the writer in the following condition: Complete paralysis of both lower limbs, except power to move the toes of one foot, and the reaction of degeneration well marked. When the child was brought to the office on the morning after the first administration, he could move the feet at the ankle joints, and on each subsequent day there was additional power of motion, and after six treatments he could move ankle, knee, and hip joints with ease and considerable force. The case then disappeared; the mother, a Polish Jewess, thinking the child cured."

Another case was reported by Dr. A. H. Allan of Gouverneur, N. Y.[19]

The cure of many cases treated by the wave current in our own hands and the practice of other physicians has confirmed the importance of the discovery.

Constipation: Dr. Sigmund Cohen introduced a method of treating constipation with the static wave current as follows:[20]

"He uses static electricity, either in the form of the wave current or of the static-induced current; the first in the milder forms of constipation, the latter in the very obstinate cases of long standing. The polarity is of importance, as the positive pole has a stronger effect on the tissues with which it is in contact than the negative pole.

"In using the static wave-current the patient is in contact with one pole only, while the other one may be grounded or not. If we use a current without grounding, the treatment is a very mild one. By grounding we make the current considerably stronger. The contact with the patient is made either by the rectum (the patient sitting on the upright rectal electrode, or by the abdominal walls (tinfoil plate, 8 in. by 10 in.). The current strength is regulated by the spark gap between the sliding poles.

"The static-induced current enables us to use very powerful means without causing the patient any pain. The patient is connected with the outer surface of the Leyden jars, while the inner surfaces are connected with the poles of the machine. One electrode is generally on the abdomen, the other one either in the rectum (direct) or on the back (percutaneous). The current strength is also regulated by the spark-gap. As the patient need not be insulated, we can also use the labile method."

This method of treating these cases has been highly recommended by Dr. F. Howard Humphris in his recent work on static induced methods, and also by Dr. Samuel Sloan of Edinborough, Scotland.

Dysmenorrhea: In the spring of 1902 the following case was referred to me to be treated for neurasthenia.

Miss M., 26 years of age. Previous history good except that she was nervous and suffered severely during her menstrual period. She was referred to us for treatment of neurasthenia, which treatment demonstrated it to have been caused by the pelvic condition. Little improvement was made with this condition until the treatment was instituted for constipation, which was aggravated as we soon discovered by a retroverted uterus.

She was treated by the method of Dr. Sigismund Cohen with the wave current applied with a metal electrode in the rectum. The treatment was begun at the end of a menstrual period, and given daily during the month. At first it was impossible to insert the metal electrode but two inches as it came against a tender retroverted uterus. Each day it was possible to insert the electrode a little further until at the end of a week it was possible to insert it full length—four inches—and the tenderness had greatly diminished. At the next menstruation the patent to her astonishment menstruated without pain, which was for the first time in her life.

This chance discovery of an effective method of treating these cases has been followed in hundreds of cases with the same result and has established a superior method of treatment for these distressing cases.

This was one of the most important discoveries that has been made by the writer and his associate, and wife, Dr. Mary L. H. Arnold Snow. Dr. Edward C. Titus reported sixteen cases of dysmenorrhea cured without an exception by this method, at the annual meeting of the American Electrotherapeutic Association.

Subinvolution is treated in exactly the same manner as prostatitis and dysmenorrhea with the wave current applied with a metal electrode in the rectum. The first case reported was of a patient whom we were treating for hyperthroidism.

Mrs. M. Examination showed complete prolapsus with stellate laceration of the cervix—there had been three tears. The uterus was 5 inches long and sensitive on manipulation. Her last confinement was seven years previous. There was pain over both ovaries and profuse menstration at irregular periods. The wave current was applied per rectum and the vacuum tube wave current per vagina. In a month the patient was pregnant, and at six months had a miscarriage followed by profuse hemorrhage. At this time two treatments were given with the wave current per rectum and the x-ray over the uterus and the hemorrhage ceased. She soon became pregnant again and has borne three children, and has continued in perfect health.

This patient was also cured of exphthalmic goiter by the wave current, x-ray, and mechanical vibration before and while undergoing the treatment for subinvolution. There has been no relapse for seventeen years from either condition. There have been few cases that could not be cured by this method.

Vaginismus: In 1905 a student physician s cured of vaginismus by Dr. Arnold Snow th the static wave current. Vacuum elec- des of increasing sizes were inserted and atments given for twenty minutes on suc- ding days with prompt relief and cure of condition within one week's time. Every e since treated by the same method has n promptly cured.

Pruritus ani is often promptly cured by the ve current with increasing sized rectal uum electrodes when caused by a proctitis t within the internal sphincter.

Epiphora is promptly cured when the tear ct is obstructed by congestion but not sten- d. This method was first applied by me to a ysician in 1907, and he was promptly re- ved as has been the result in all cases in ich there was no stenosis.

Cirrhosis of the liver: In the winter of 1904 . Edward C. Titus referred to me a patient ffering from hypertrophic cirrhosis of the er. At the time the patient—a woman out 40 years of age, came to our private hos- al—she was carrying a temperature of 103° and suffered from marked depression and stress coincident to her condition. The wave rrent was administered daily with a large tal electrode placed over the enlarged liver, th the result that in a few days her tempera- re was normal, and the liver was much re- ced in size. After the first two weeks the tient was able to come and go for treatment, d the liver was steadily diminished to normal e. This patient was an habitual alcoholic, d while under restraint the liver became near rmal in size.

The fact that the liver under these condi- ns was reduced in size proved the advisa- lity of this method of treatment, and since the atment of this case the same results have en obtained in other cases treated by the iter and others. This was the first case ever ated in this manner and the results were very atifying.

Enlarged Malarial Spleens:[21] In 1907 Dr. lice B. Condit, then practicing medicine as a issionary in Ludhima, Hindustan, reported cases of enlarged spleens in native women eated with the static wave current. In all ese cases the results were remarkable. The leen being reduced in nearly all cases to a rmal size. These were the first cases treated this manner. We have obtained the same re- arkable results in cases of enlarged spleens in ir own offices reducing them to normal di- ensions.

Trauma of the Spinal Column: In 1904 a tient who had suffered a concussion of the ine in a railroad collision was referred to by his physician, Dr. Edward C. Titus. He me to our private hospital in an all but help- less condition. The parts injured were in the upper cervical region and the mid-dorsal. The left side was partially paralyzed, and his right side was choreic in both the arm and leg. The railroad physician in examining his patella re- flex caused a general convulsion and advised the railroad adjuster to settle, giving a very un- favorable prognosis. A very liberal settlement was made.

The wave current was applied twice daily to the cervical and mid-dorsal regions. Improve- ment was marked from the first. Within two weeks he was able to return to his home and go to and from the office of Dr. Titus for treat- ments, and within a month he was cured.

This case gave convincing evidence that in injuries of the spine without fracture or dis- location the static current might restore the parts to normal.

Spastic Paraplegia: Two cases of spastic paraplegia have been clinically cured in our offices, one with a specific history who received associated specific treatment and the other gave a negative Wassermann but was of toxic origin.

Improvement was prompt in both cases from the spinal static treatment, and in the toxic case, additional static to the liver was adminis- tered.

Sacro-illiac Luxations: Many of these cases, in the past were cured by the static wave cur- rent and static sparks applied to the affected part and contracted muscles and with exercise. Now with the joint use of adjustments and static treatments all early cases are promptly cured, and the chronic cases also by persistent effort.

The static brush discharge, first described by Cavallo was revived in a useful field by the writer after its effects in the treatment of a sprained wrist had been suggested by a young physician in the South who called my attention to results he had obtained. The technique was first published by me in my work on Static Electricity and the Uses of the X-ray,[22] and later in my work on Currents of High Potential of High and other Frequencies.

This modality is very useful in the treatment of all superficial inflammatory affections. It is of particular value in the treatment of varicose ulcers, plebitis, over wounds and following in- cisions to prevent scarring. Its value has also been demonstrated in the treatment of lupus.[22]

It is also invaluable in conjunction with the X-ray in the treatment of lupus erythematosus —a fact that has not yet been recognized by the dermatologists—using the X-ray up to a commencing dermatitis and then employing the brush discharge with thoroughness daily until the dermatitis subsides, repeating the X-ray and brush discharge alternately until a cure is effected. It is also of value in the

treatment of affections of the scalp and face, and in removing induration from the margins of wounds when there has been delayed union, and to prevent scars when operations have been made on the neck or face.

Chilblains: are promptly cured by thorough applications of the brush discharge.

The brush discharge is a useful measure included in the treatment of herpes-zoster patches until the acute symptoms of the patient are relieved. A few applications will cause a complete drying up and disappearance of the eruption and when used in conjunction with the static wave current and static sparks these cases in all cases in which treatment is instituted in the early stage are promptly cured.

The blue pencil discharge was first instituted by Dr. Frederic deKraft. It requires a powerful static appartus to produce the long sofe effleuve projected from a sharp point with a special electrode from a long distance against the surface for relief of pain and local inflammatory conditions.

The Static Resonator: The first apparatus of this sort was designed by Dr. Piffard. An apparatus of far greater efficiency was later designed by Dr. Frederic deKraft and he has demonstrated its efficiency in the treatment of diabetis mellitus, and numerous other inflammatory conditions, including neuritis and synovitis in which the wave current and the other static modalities are used. It relieves induration, and produces a very active hyperemia of the skin. It fills a very important place in the office of men who have the adequate apparatus and are conversant with the static indications.

It will be seen by the foregoing that the static modalities fill an important role in the therapeutics. There is no electrical apparatus that can take their place, for they fill a more important place in medical practice than any other electrical or other apparatus in the hands of the men who understand the indications and the methods and technique of employing the various modalities.

Before closing I would call attention to the writer's efforts to overcome the dictum, so long in vogue, of censuring the use of electricity in acute diseases. At the meeting of the American Electrotherapeutic Association at Buffalo in 1901[22] I called attention to the faulty dictum, that had for a long time been, and is still taught largely by the neurologists and their followers, that it is dangerous to employ electricity in acute inflammatory conditions. The members present at that session including Dr. William J. Morton, all concurred in the view that the old dictum was obsolete.

In the paper presented at that session I first reported the value of the static current in treating acute inflammatory conditions by the removal of the local stasis by the pulsitory action induced in the tissues by the static modalities and urged that the old dictum be countermanded.

It will be seen that the static modalities play a very important and distinctive role in the therapeutics of electricity.

In the future of medicine it must ultimately be conceded by all that the static discharges and currents produce important characteristic effects and the distinctive qualities which render them the means **par excellence** for the treatment of all forms of noninfected inflamed conditions and sluggish metabolism.

The writer considers that physicians who are familiar with these facts should use their earnest endeavors to promulgate the principles and indications for their employment and thereby perform a duty to humanity, for there is no other means so instrumental in relieving pain and suffering in these conditions.

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Bibliography

1. "A Complete Treatise on Electricity, in Theory and Practice, with Original Experiments," by Tiberius Cavallo, F. R. S. Third edition, London, 1786.
2. American Journal of Electrotherapeutics and Radiology, February, 1918, page 55.
3. Spark-Gap Currents; Namely, Oscillatory Currents Due to a Series of Sparks Passing at a Spark-Gap. By James Morton, M. D. Read before the American Electrotherapeutic Association in 1900 and published in the bound copy of the Transactions for 1899 and 1900.
4. Read before the New York Academy of Medicine, March 13th, 1881, published in the Medical Record in 1881.
5. The Transactions of the American Electrotherapeutic Association for 1900, page 282.
6. Read before the New York Academy of Medicine, March 3, 1881. See New York Medical Record of April 2, 1881.
7. Read before the New York Neurological Society, December 2, 1890. See New York Medical Record of January 24, 1891.
8. Published in the Journal of Advanced Therapeutics in October, 1911.
9. The Journal of Ophthmology, Otology and Laryngology, September, 1901, page 319.
10. Treatment of Exophthalmic Goiter and Myxoedema, reprinted from Archives of the Roentgen Ray and Allied Phenomena, September, 1908, London, England.
11. Exophthalmic Goiter Successfully Treated by Physical Methods, published in the American Journal of Electrotherapeutics and Radiology, July, 1921, page 283.
12. Published in the Journal of Ophthalmology, Otology and Laryngology, September, 1901, page 321.
13. Journal of Ophthalmology, Otology and Laryngology, September, 1901, page 319.
14. Transactions of the American Electrotherapeutic Association, 1899-1900, pages 121, 122.
15. Published in my work of Static Electricity and the Uses of the X-ray in the edition of 1904, page 87.
16. Reported in the Transactions of the American Electrotherapeutic Association for 1899 and 1900, page 118.
17. Transactions of the American Electrotherapeutic Association for 1900.
18. Static Electricity and the Uses of the X-ray, by Snow, page 116.
19. Static Electricity and the Uses of the X-ray, Snow, page 117.
20. Reported by Dr. Cohen in a paper read before the New York School of Physical Therapeutics, and published in the New York Medical Journal, September 6, 1902.
21. Journal of Advanced Therapeutics, 1907, page 461.
22. Static Electricity and Uses of the X-ray (Snow), page 274 and 276.
23. Reported in the Journal of Advanced Therapeutics, Vol. 1, 1901.

G. U. and Syphilology

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SEX ORGAN TRANSPLANTATION

So much has been said about sex gland transplantation in the lay press that the public is demanding of our profession definite opinions regarding it and the following from Voronoff, who is easily first among the authorities (Repertorio de Medicina y Cirurgia, March, 1922), is worthy of being passed on.

Among the unicellular organisms which constitute the earliest type of living beings Voronoff tells us that cellular division goes on taking place throughout many generations without a single instance of death occurring, and when from loss of substance a colony undergoes a certain degree of retraction, instead of dying, its members are seen to unite, being rejuvenated and rendered more active by this division, and so going on to a new series of divisions. The ameba does not die: it may be destroyed by an enemy or by lack of sustenance, but it knows nothing of physiological death.

In higher organisms the cells which approximate nearest to the primitive type are the connective tissue cells and leucocytes, which are also the most universal. A study of old age teaches that the connective tissue cells invade more and more the structure of organs, producing sclerosis, a phenomenon seen alike in the brain and the bones, the arteries and the muscles, the liver and the kidneys.

When tissues are grafted they are deprived for a time, while new vessels are forming, of nutrition by means of the circulation, during this period the differentiated cells of the graft atrophy, while the connective tissue cells endure and fill their place when circulation is established. Life, the function of all the organs, is dependent on the activity of the glandular system. There is one gland which supplies a marvelously stimulating energy to all the cells of the body—the interstitial gland. Its internal secretion stimulates the vital energy of every tissue and increases resistance to the invasion of connective tissue which portends the coming on of old age.

Since 1917 the author has performed more than a hundred experiments in grafting the testicles of various animals. Inserting the fragments within the tunica vaginalis in the natural location of the testicles affords a better result than when they are placed beneath the skin or the peritoneum. In goats the results attained were amazing. Distinctly senile animals renewed their vigor, appeared younger, recovered from incontinence of urine and from trembling of the limbs, put on flesh, became lively and aggressive, and regained sexual potency.

Voronoff comments on the difficulty of obtaining human testicles in any quantity for transplantation, and proposes using those of simians, citing a case in which he successfully transplanted the thyroid gland of a monkey into a boy of 14 years.

OPERATIVE CURE OF INCONTINENCE OF URINE

Traumatic or congenital conditions resulting in urinary incontinence pointing to surgery alone as a possible cure are beyond the realm of the average physician and of many surgeons. The patient nicety of technique required can be only had at the hands of the few who are especially skilled. Young, discussing surgical treatment of incontinence (Jour. of Urology, November, 1922) cites cases to prove that even after great traumatism, extensive destruction of both internal and external sphincters, and in the presence of much scar tissue, it is still possible by means of thorough plastic operations to cure urinary incontinence and obtain normal micturition. In some cases the defect is posterior and excision of scar tissue and sphincteric plastics must be carried out along the floor of the urethra both through the suprapubic and perineal incision. Where the defect is along the roof of the urethra as in epispadias, excision and plastic must be along the roof. Where incontinence is due to fistulae which parallel the urethra whether after fracture of the pelvis, or from dermoid cysts of the prevesical space, the restoration of a normal urethra, excision of strictures and the closure of fistulas must be carried out, but if the internal and external sphincters have been injured, the operation must include plastic procedures to restore these sphincters. Each case is, therefore, a study unto itself and the operation has to be varied according to the findings and conditions presented, as in the ten cases detailed in which excellent results were obtained.

POSITIVE WASSERMANN TEST IN A FATAL CASE OF ESTIVO-AUTUMNAL MALARIA

This case is reported by Guthrie McConnell, Cleveland (Journal A. M. A., April 21, 1923), because of the control of a positive Wassermann reaction by necropsy in a case of malaria, that clinically showed no evidence of syphilis in spite of the history of infection. The necropsy, however, disclosed very definite syphilitic lesions of the aorta, with involvement of the aortic leaflets.

✣ ✣ ✣

¶ Pitiless publicity is the cult-killing corrosive. Practical ethical publicity is the redemption of the profession.—Ill. Med. Jr.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald
and Electro-Therapist
Incorporating the
Kansas City Medical Index-Lancet

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Vol. XLII MAY, 1923 No. 5

The Editors' Forum

JOINT MEETING OF THE MEDICAL SOCIETY OF THE MISSOURI VALLEY AND THE INTERSTATE SOCIETY OF RADIOLOGY AND PHYSIO-THERAPY

ARRANGEMENTS have just been completed for a four days' session of the above named associations at the Hotel Fontenelle, Omaha, Neb., September 18, 19, 20 and 21. The first two days of the week—Tuesday and Wednesday—the Society of Radiology and Physiotherapy will hold its sessions, under the presidency of Dr. C. L. Mullins, Broken Bow, Neb. On Thursday and Friday, the annual meeting of the Medical Society of the Missouri Valley will be held under the presidency of Dr. Floyd H. Spencer of St. Joseph. The arrangements for this meeting will permit an intermingling of the two associations, with probably a joint "get-together" banquet on Wednesday evening. The arrangements are in the hands of a local committee, consisting of Dr. J. Frederick Langdon, chairman; Dr. Claude Uren and Dr. R. D. Schrock.

The Interstate Society of Radiology and Physiotherapy was organized last December at Omaha. Dr. Roland G. Breuer of Lincoln is the secretary, to whom titles of papers should be sent.

Titles for the Missouri Valley Society should be sent to the secretary, Dr. Charles Wood Fassett, 115 East Thirty-first street, Kansas City, Mo.

While it is proposed to hold the sessions of these two societies on different days, it is understood that all members of both bodies will be welcome on the floor in the discussion of papers before either association.

There will be an elaborate exhibit on the mezzanine floor of the Fontenelle, which will be of interest to visiting members. Everything new and up-to-date will be on exhibition.

THE WESTERN ELECTRO-THERAPEUTIC ASSOCIATION

SCHOLASTIC Kansas City! It is to be commended upon the establishment of another institution of learning which proclaims the progress of the city from ocean to ocean. The fifth annual meeting of the Western Electro-Therapeutic Association which closed Friday, April 20th, after a two days' session, preceded by a school of instruction of three days, brought doctors from Pennsylvania, California, Texas and all intermediate states. The meetings were held at the Little Theater. Its capacity was taxed. The lectures indicated the enormous strides being made in electrotherapy. The program of the session was made up of men who are pioneers in this comparatively new and legitimate field of regular medicine. Drs. T. Howard Plank of Chicago, B. B. Grover of Colorado Springs, A. J. Pacini of Chicago, F. H. Morse of Boston, H. H. Bowing, Rochester, Minn; J. D. Gibson of Denver, Roland G. Brewer of Lincoln, and Sanford Withers of Denver were regarded as leaders in thought during the sessions. Kansas City was represented by Drs. E. H. Skinner, L. A. Marty, Lynne B. Greene, W. P. Grimes and S. G. Burnett.

The exhibit hall was an interesting place, being filled with the various forms of appliances used in the application of electricity.

The association is composed entirely of members of the regular profession, none others being eligible. Some of the most profitable and charming hours during a medical convention are those spent by clusters of old friends in cosy corners, or at the dinner table where inner souls exchange ideas and experiences. Such a delightful group, by a common affinity, gravitated into the Peiser cafe for dinner Thursday evening, and held an adjourned meeting of the rare old "Sam Johnson Beefsteak Club." The group consisted of thirteen good fellows, and although the darky waiters looked askance at the thirteen plates, fear gave way to beautiful reminiscences of the Missouri Valley meets, the Southwest and of the grand old men who have slipped away from scalpel and pill bag, but who still live in memory.

The meeting was an especially pleasing one in every respect. It brought to all who attended a first hand knowledge of the progress

made in the science. All who attended went home better informed and happier men. Many doctors who took the Grover course in past years returned for further instruction. The closing feature of the session was an operative clinic on malignancies held at the General Hospital, by Drs. Plank and Marty.

The following officers were elected for the ensuing year:

President, H. H. Bowing, M. D., Rochester, Minn.

First Vice-President, E. H. Skinner, M. D., Kansas City, Mo.

Second Vice-President, A. David Wilmoth, M. D., Louisville, Ky.

Treasurer, W. P. Grimes, M. D., Kansas City, Mo.

Registrar, B. C. Harris, M. D., Sapulpa, Okla.

Board of Trustees—T. Howard Plank, M. D., Chicago, Ill.; B. B. Grover, M. D., Colorado Springs, Colo.

Secretary—Chas. Wood Fassett, M. D., Kansas City, Mo.

Next meeting in Kansas City, Mo., April, 1924.

"Sparks"

Burnett, Kansas City: "We are first physicist; then physiologist; then physician."

* * *

Fuller, U. S. Government Service: "Know the underlying pathology; use no diathermy where hemorrhage is feared."

* * *

Grover,, Colorado Springs: "High frequency current will reduce high systolic count. Never saw a case it would not help."

* * *

Pacini, Chicago: "Deficient calcium metabolism in hay fever and other anaphylactic syndromes may be corrected by ultra violet ray."

* * *

Morse, Boston: "No intelligent results can occur without a knowledge of the fundamental theory."

* * *

Skinner, Kansas City: "Whatever modality is used must be backed by brains and experience."

* * *

Brewer, Lincoln: "Night sweats, emaciation, elevated temperature, rapid pulse, cough, are not pathognomonic of tuberculosis. Examine scapula, clavical neck muscles, chest walls."

* * *

Among the visitors and guests at the meeting we noticed the following: Drs. Phil Warter, Evansville, Ind.; E. C. Henry, Omaha, Neb.; Milo Moulton, Bellevue, Iowa; Paul Kersch, Rock Island, Ill.; H. R. Holmes, Chicago, Ill.; Phillip Cannon, Chicago, Ill.; R. W. Fouts, Omaha, Neb.; Roy A. Dodge, secretary of the Omaha Douglas County Medical Society, Omaha, Neb., and Roland G. Breuer secretary of the Interstate Society of Radiology and Physio-Therapy, Lincoln, Neb.

* * *

The visitors were all delighted with the accommodations at the Bellerive. Manager Dunning has every reason to be very proud of his new and beautiful hostelry.

* * *

Dr. Plank made a very dignified and capable presiding officer. The doctor has a very effective way, too, of disposing of disturbing elements.

J. M. B.

PHYSIOTHERAPY IN CALIFORNIA

THE first convention of the California Physiotherapeutic Society, a section of the Los Angeles County Medical Association was held in Los Angeles, March 19-24th. The sessions were held at the California Hospital, Grand Avenue and Fourteenth Street.

The papers read and discussed were highly instructive in character. Among the essayists were Doctors Gustav Biorkman, Chas. C. Wharton, Jno. A. Metzger, Samuel Ayers, Sven Lokrantz, Jno. C. Wilson of Los Angeles, Dr. Wm. W. Worster, San Gabriel, H. J. Andrews and Dr. F. C. Ferry, Hollywood, Dr. Frederick H. Morse, Boston, and Dr. Burton B. Grover, Colorado Springs.

One hundred and one physicians were in attendance.

TO THE MEMBERS OF THE MISSOURI VALLEY AND SOUTHWEST MEDICAL ASSOCIATIONS

You are cordially invited to join the Southern Medical special train to the A. M. A. at San Francisco. This train will leave Kansas City the evening of June 19, arriving in San Francisco on Sunday before the meeting. Short stop-overs will be made at various points and a pleasant trip in good company is assured. Notify Mr. L. R. Welsh, D. P. A., Missouri Pacific Railroad, Kansas City, Mo., if you desire reservations.

Dr. Burton B. Grover, of Colorado Springs has been invited to read a paper at the Iowa State Medical Meeting at Ottumwa, on May

Dr. J. D. Gibson, of Denver, who injured his back by a fall at the General Hospital, in Kansas City, during the W. E. T. meeting, has returned to his home. A late report is to the effect that an x-ray examination found a luxated sacro-iliac joint, which will keep the doctor in bed for a week or two. Dr. Gibson has the heartfelt sympathy of many friends who are hoping he will soon recover from the accident.

Dr. T. Howard Plank, of Chicago, read a paper on "Electro Coagulation" at the recent meeting of the Kansas State Medical Society

The American M

SAN FRANCISCO, CALIFORNIA

CALIFORNIA, the perennial land of sunshine and flowers, is extending a cordial welcome to the physicians of America. The date of the meeting of the American Medical Association, June 25 to 29, will find California and San Francisco rayed in all the beauties of nature for which the ate is famous. Dr. Ray Lyman Wilbur of Stanrd University will preside at the general session. l the section meetings will be held in the Civic ıditorium, which will also house the exhibits—all der one roof.

SAN FRANCISCO

San Francisco, port of the "Golden Gate," is one the most distinctive cities on the American continent.

The city itself stands upon the promontory of the northern part of ın Francisco peninsula, with an outlook in every direction. To the st are the bay, hills and populous cities of Alameda county. To the ›rth are the Golden Gate, the Marin county hills and majestic Tamal-ıis, mountain of the sea. To the west are the illimitable expanses of e Pacific, and to the south San Francisco Bay again, extending into e vast orchard-filled valley of Santa Clara.

San Francisco Bay rivals that of Naples, and the Golden Gate lead-g into it was so named from its resemblance to Constantinople's ›lden Horn.

In the immediate vicinity of San Francisco are enough short pleas-e trips to keep a tourist delighted and busy for months. There is Mt. ımalpais, the Muir Woods, the trip down the ocean shore, Mt. Hamil-n Observatory, University of California and the famous Greek Thea-r, Lake Merritt and the City of Oakland, with the trolley rides in at vicinity; Stanford University, San Jose and the Santa Clara Val-y fruit section, the old Mission San Juan Bautista with its relics; onterey, Del Monte, Pacific Grove, Carmel Bay, Carmel Mission, Moss ach, Pebble Beach, Santa Cruz and the Redwood Big tree grove; y excursions to Mare Island Navy Yard and Napa Valley, Petrified ›rest, Mt. Lassen volcano and many more. The whole bay region is recreation ground for those that love the out-of-doors.

No other large city offers such opportunities for outdoor sports ar at hand—yachting on the bay and rivers, deer shooting in the ›untains within a few hours by rail or motor, superb fishing in the en ocean just outside the Golden Gate.

San Francisco has one of the finest of climates, with comfortable d invigorating temperatures the year around. Stimulating sea breezes ›w during the summer afternoons, insuring against heat, and usually ling in the evening, so that the nights are extremely pleasant—a condi-n that does a great deal to promote the out-door night life of the city.

SANTA FE SPECIAL

A number of special rains are being planned over the various routes.

The Santa Fe Railroad will run a special train, starting from Chicago, ssing through Kansas City at 9 a. m., June 17th. This train will stop er at Grand Canyon, Colorado Springs, and other points, arriving in Los ıgeles at 3:30 p. m., June 21st, with privilege of completing the journey San Francisco by boat, but this must be decided when you buy your ket.

THE SOUTHERN SPECIAL

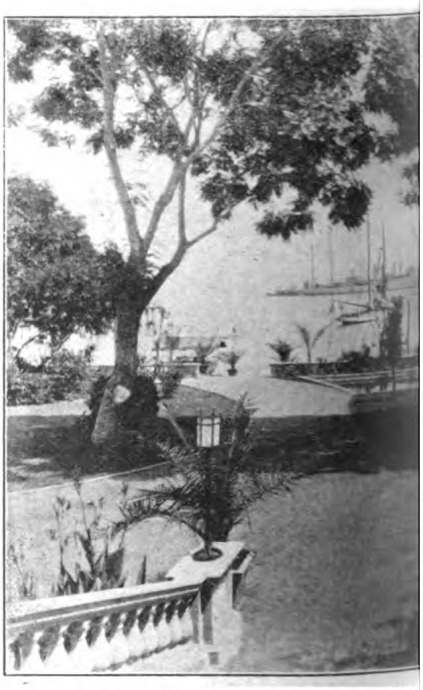
The Southern Medical Association will run a special train, from St. uis, 9 a. m., Tuesday, June 19th, and leaving Kansas City, via the Mis-ıri Pacific, at 5:20, the same afternoon. This train will run via Colorado rings, Glenwood Springs, Salt Lake City, with short stop-overs, and ar-ing in San Francisco Sunday afternoon, June 24th. A very cordial in-ation has been extended to all members of the Missouri Valley, South-st, Missouri and Kansas State, Jackson County, Buchanan County, and ıer societies along the route of the special train. The round trip fare m Kansas City will be $72.00, with the privilege of returning over sev-l different routes. Those desiring to return over the northern route l pay $18 00 additional. We learn that the local medical societies in lorado Springs and Salt Lake City are preparing entertainment for ›se who are members of the Southern party. Full information may be ained from Mr. L. R. Welsh, Division Passenger Agent, Missouri Pa-c Railroad, Kansas City, Mo.

CLOTHING FOR CALIFORNIA COMFORT

Physicians and their wives attending the meeting should take their



San Francisco's Exposition Auditorium where the Medical



Beautiful Gardens of Hotel St. Cathar Islan

dical Association

:::: *JUNE 25 to 29, 1923*



he twenty-million-dollar civic center
ntion will be held.



ronting on the ocean, Catalina

overcoats and evening wraps, for while the days will be pleasant the evenings will be cool. Those who expect to travel about in the state should wear ordinary weight underwear, and carry overcoats and wraps to meet the variations of climate.

SIDE TRIPS

Arrangements are being made for side trips to Honolulu, Alaska, Japan, China, and the Philippines; also shorter trips to Seattle, Yellow Stone, Glacier and Rainier National Parks, Santa Barbara, Atascadero, and Los Angeles.

CATALINA ISLAND

While visiting Los Angeles, no one should fail to visit Catalina Island. There is no trip in the world that affords as much diversion or has a greater opportunity for enjoyment, as a trip to the island in the celebrated glass-bottom boats over the submarine gardens. On Catalina Island, which is the beauty spot of California, will be seen the palatial home of Mr. Wm. Wrigley, Jr., also the beautiful hotel St. Catharine, "a scenic gem in a sapphire sea." Catalina Island is reached by the steel steamship, "Avalon." The round trip rate being $3.10 from Los Angeles.

LOS ANGELES

Physicians and their families will enjoy a stop-over in Los Angeles at the beautiful "Ambassador" Hotel, located in its own 27-acre park, with all amusements and entertainment. If you prefer the down town district, The Alexandria provides excellent service and reasonable rates.

RIVERSIDE

No visit to California would be complete without a stop-over at the historical "Mission Inn" of Riverside. This hotel has a well earned reputation for beauty and comfort. The "Mission Inn" may be reached by auto or rail from Los Angeles. The Golden State Auto Tour Company maintains a splendid service to and from Riverside. For service call the Rosslyn Hotel.

ADDITIONAL MEETINGS

The National Tuberculosis Association, Santa Barbara, California, June 20th to 23rd.

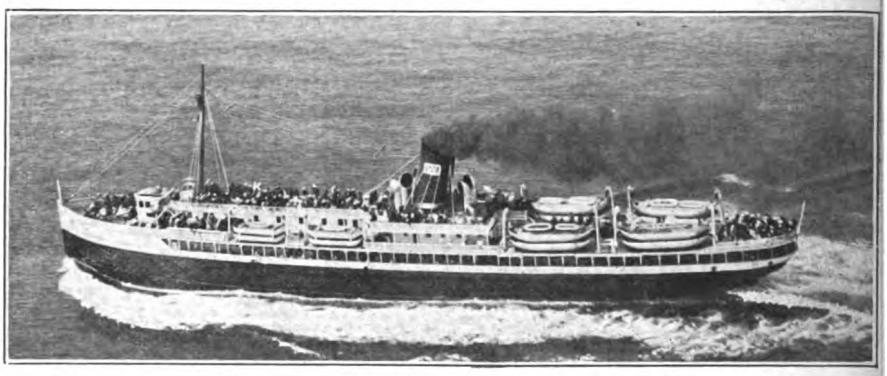
The American Proctologic Society, Los Angeles, June 22nd and 23rd. The profession cordially invited to both meetings.

HEADQUARTERS AT SAN FRANCISCO

The writer's headquarters in San Francisco, will be "Hotel Somerton," 440 Geary Street, just off Union Square. Members of the Missouri Valley, Southwest, Electro-Therapeutic, and other societies, who have not made their room reservations, should do so at once, as the hotels are rapidly filling. If you desire a reservation; or if you are interested in a side trip to the "home colony," Atascadero, address Charles Wood Fassett, M. D., secretary, 115 East Thirty-first Street, Kansas City, Mo.

CLINICS

A series of clinics will be held in San Francisco, Oakland, and Los Angeles, before and following the meeting. Information in regard to the clinics or hotel accommodations may be obtained from Dr W. E. Musgrave, Chairman of Committee on Arrangements, Balboa Building, San Francisco.



Steel Steamship "Avalon," operating to and from Catalina Island.

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

"THE DENTAL RADIOGRAM AND THE SCIENCE OF INTERPRETATION"

A textbook for students and practitioners of dentistry and medicine by Frank Earl Browning, M. D., Captain, M. C. (late U. S. Army) with 142 illustrations. E. J. Hendrickson Company, 1922, New York City. Price $3.50.

The book is put forth in rather a condensed form as a text book for students and practitioners of dentistry and medicine to enable them to become more proficient in the interpretation of the dental radiogram.

The first chapter deals with the dental radiogram. Its value as diagnostic aid; dental nomenclature; the correct method of illumination for the examination of the radiogram. He lays particular stress on poor illumination and the incomplete examination of the radiogram. **Intra-oral radiograms** should be used to examine the teeth and alveolar processes; twenty intra-oral films are necessary for a complete examination of the Processus Alveolaris, and that three radiograms should be made of each particular tooth or area under examination. **Extra-oral radiograms** should be used when an extensive pathological condition is present, and for examination of such conditions as fractures, dislocations, cysts, necrosis, foreign bodies, salivary calculi, infected and cystic accessory sinuses and malposed teeth.

The author uses the new term "osteoclasia" to nominate what other authors and general radiographic parance defines as a granuloma or chronic periapical infection. The author believes that bacterial cultures should be made from an area of "osteoclasia" to determine whether it is of biological or non-biological etiology and that blood cultures and complement fixation tests of the patients serum should be made to determine the degree of saturation of the patient's blood with the toxin of the bacterium.

Chapter II deals with the rediographic study of normal oral tissue. The author states that mistakes in interpretating the shadows in the dental radiogram are made not so much from a lack of knowledge of pathological shadows as it is from a lack of knowledge of anatomical shadows. He takes up the study of the radiogram in normal bone, teeth and peridental membrane.

In the next 80 pages the radiographic study of pathological oral tissues are discussed, giving the radiographic findings in alveolar resorption "osteoclasia." The author defines this term as a destructive metamorphosis of bone, and uses it in preference to granuloma and apical abscess, refusing to grant the radiographic diagnosis of granuloma. He gives the causes of osteoclasia as the biological, chemical and mechanical origin. He further discusses osteitis, eburnation, edentulous areas, necroses, cysts, tumors, foreign bodies, fractures of the jaw, dislocation, cleft palate, salivary calculi, infected and cystic accessory sinuses, caries and abrasion, fractures of the teeth, osteoma, impacted teeth, supernumerary teeth, transplated teeth, absence of teeth, pulp stones, secondary deposits of dentine, excementosis, periodontitis, apiecectomy and unerupted teeth.

The last chapter deals with the radiographic examination in the treatment and filling of root canals; first, to determine the topography of the roots; second, to diagnose success in reaching the apical foramen; third, to diagnose success in filling the root canals. The author states that the majority of the



ires to completely fill the root canals can be as-
ɔed to the fact that the roots selected for treat-
t were topographically unfit for this operation.
ıis little book is written from the dentist's stand-
t and offers little of interest to the physician or
tgenologist. It is a good catalogue of dental
s which are interpreted entirely from the mechani-
lentist's viewpoint and offers no clinical interpre-
ns. E. H. SKINNER.

ɣH FREQUENCY PRACTICE FOR PRACTITIONERS AND STUDENTS

r Burton Baker Grover, M. D., author of Hand-
: and Electrotherapy. Illustrated with ninety-
engravings. (Price $4.00.) Published by the
tron Press, Kansas City, Mo.

:. Grover's chapter on Diseases of the Eye in his
c just issued on "High Frequency Practice," is a
book itself, and will be a welcome addition to
thalmology. Up to the present time electricity
been used by ophthalmologists in rather an em-
al way and has been limited to a very few condi-
s.

ɔth the Galvanic and the High Frequency cur-
s have stood the test of time, but now in Dr.
ver's work the way has been opened for further
ınces in the use of electricity upon the eye.
uch can be said for the analgesic properties of the
frequency current, as well as those of absorp-
of pathologic conditions by the galvanic current.

ɔcal anaesthesia of the softer and looser tissues
he orbit and appendages has in many cases been
ented by the oedema caused by the fluid neces-
for the injection, thus causing landmarks to be
ılaced, but now new light has been shed upon the
ıtion by the use of "Ionization." Thus the anaes-
thetic can be introduced into the deeper tissues without any mechanical interference in the operation field.

"High Frequency Practice" (Grover), is a work which should be in the hands of every ophthalmologist. E. M. MARBOURG, M. D.

PHYSICAL EXERCISES FOR INVALIDS AND CONVALESCENTS

By Edward H. Ochsner, B. S. M. D., F. A. C. S., 56 pages, cloth. Second edition. C. V. Mosby Co., St. Louis, 1922. $0.75.

In this little book the author has given a series of exercises suitable for convalescing patients and also persons engaged in sedentary work. Especial attention is given orthopedic cases. The illustrations making plain the text are numerous.—H. N. J.

CORRECT ENGLISH

HOW TO USE IT

A MONTHLY MAGAZINE

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to

Correct English Publishing Co.

EVANSTON, ILLINOIS

Influenza and Broncho-Pneumonia

The most disagreeable feature of these affections as they are occurring in the current epidemic, is the extreme and often dangerous depression that all too often accompanies even the mildest attack. These ills, however, have lost many of their former terrors to physicians who have learned to depend throughout their course on the tonic and supportive action of

Gray's Glycerine Tonic Comp.

Not only will this remedy bolster a weakened, flagging heart through its gratifying efficiency in promoting the assimilation of nutriment, but through its stimulation of the vital processes of the body, it will with equal efficiency, counteract the severe toxic effects of the infecting organism and thus assure an early convalescence, free from the usual complications and uncertainty.

The Purdue Frederick Co.

135 Christopher Street, New York

Medical Melange

HOW THE "R & G" MEDICINAL WATER WAS DISCOVERED

Some six years ago—in 1916—Messrs. Robinson and Gullett were drilling for oil two miles east of the city of Austin. When their drill had reached a depth of 1,147 feet it broke through the cap rock into a great subteranean reservoir and the artesian flow of water gushed forth with such force and volume that it completely flooded the surrounding land which at the time was planted in truck garden products.

Strenuous efforts were finally rewarded and the well was capped and the tremendous flow of the great "geyser" was brought under control. In many similar experiences these immense flows of water from other wells had proved injurious to soil and growing crops with damage suits usually resulting. In order to determine their liability along this line and to be prepared for eventualities, Messrs. Robinson and Gullett took samples of the water to the Division of Chemistry of the State University of Texas at Austin, for analysis. The analysis was made by Professor E. P. Schoch, head of the Chemistry Division of the college, assisted by members of his staff, this analysis showing the high mineral salt content of the water and proving it to be what is considered the most perfectly balanced natural medicinal water that has ever been found in any part of the world.

The well was drilled in what is known as a geological fault. Messrs. Robinson and Gullett owned and controlled acreage around the well and, with no other similarly faulted condition apparent on the entire structure, it was evident that this one well, by a remarkable stroke of fortune, had been located at just the exact spot considered necessary to reach and release this immense flow of natural mineral water.

Realizing that they had made a discovery of far greater importance than if they had brought in the greatest oil gusher ever completed, the owners of the well constructed a small, temporary bottling plant at the well and began shipping the water in limited quantity throughout the country for a thorough test as to its therapeutic value. Hundreds of tests were made in the treatment of the most severe and most advanced cases of indigestion, constipation, eczema, rheumatism, liver, kidney and bladder troubles—in fact any and all abnormal conditions resulting from defective elimination. The results were so favorable that the water rapidly gained fame among the medical profession and among their hundreds of patients throughout the United States, as a very remarkable curative agent.

The marketing of the water in a commercial way, through a nationally developed sales organization, has been held in reserve throughout these years until the water could be put to these hundreds of exacting tests so as to leave not the slightest element of doubt as to its great medicinal value and as to its pre-eminent position in the lead of all mineral and medicinal waters, natural or artificial, available in any part of the world.

TWO NEW ABBOTT ITEMS

Among the most interesting additions to the catalog of the Abbott Laboratories of Chicago is a laxative or cathartic pill which is calculated to serve a generality of patients, especially those showing a chronic constipation and long dependent on evacuant drugs. It is listed as Alopil. Different from the many ordinary cathartic pills offered, it tends to restore rather than to break down the natural habit of the bowels. Although new, a large demand for Alopil is reported

The Management of an Infant's Diet

Constipation

Infants that have a fat intolerance as a result of being fed upon mixtures containing a high percentage of cow's milk fat may develop a condition of constipation of a most pronounced type. This appears, at first, to be most difficult to correct; yet a very simple adjustment of the diet will bring prompt relief. The proper procedure is to remove all of the cream from the milk to be used in preparing the diet and add an easily assimilable carbohydrate. This carbohydrate element should be free from starch and one that has a high point of assimilation, for it is important that a relatively high percentage be used in order to compensate for the heat and energy lost by removing the fat.

Mellin's Food

contains the carbohydrate—maltose—which answers the purpose, for maltose is utilized in larger amounts than any other carbohydrate. Successful results may therefore be obtained by preparing the modification with skimmed milk and at least four level tablespoonfuls of Mellin's Food to each pint of the food mixture.

Further details are given in a pamphlet which physicians may obtain upon request.

Mellin's Food Company, Boston, Mass.

y the firm. Another new item is Ephinephrin hloride Solution. Of course, the adrenal principle as been in use for a long time, but it is believed that great many physicians will welcome this reliable bbott-quality preparation. It is suitable both for ical application and for internal use, by mouth or ypodermically.

ANNOUNCEMENT

Mr. David E. Ushkow, president of the Intravenus Products Company of America, Inc., 121 Madison venue, New York City, has completed arrangements hereby his company becomes the sole distributors f Persson's Antigens, manufactured by the Persson aboratories Company, Mount Clemens, Michigan.)f these antigens, that for pneumonia was developed y Dr. Gustof A. Persson for the United States gov-nment during the war and was used with marked ccess in various army camps both for therapeutic nd immunizing purposes. That for rheumatism has roved effective in many hundreds of cases at the olonial Sanitarium, Mount Clemens, of which Dr. ersson is the medical director. All are prepared with rupulous scientific accuracy in order to insure uniorm reaction. Mr. Ushkow, who has made a remarkable success of marketing his well-known Endo ntravenous Solutions, proposes to devote the same ntiring energy, initiative, and salesmanship to the issemination of the Persson products, which he has amed "Idogens" (Specific Bacterial Antigens) to istinguish from the ordinary bacterial antigens, which re not specific in their immunizing action. Mr. Ushow states that "Idogens" will be placed with the eading dealers throughout the country, thus making t possible to fill all orders promptly. From his nowledge of the actual resuults accomplished with Idogens" in clinical cases he feels that by placing his product within reach of all physicians he is conferring a boon not alone upon the medical profession, but also on the general public.

AN IMPRESSIVE MARGIN OF SAFETY

Dr. Hare says "any drug possessed of power has a toxic dose." It is possible to give too much of it. The practical question concerning all therapeutic agents is: "Is it efficient in non-toxic doses?" This question has been very carefully threshed out in the case of Mercurosal, the new mercurial offered by Parke, Davis & Co. Chemical tests of purity, to establish the uniformity of successive lots, are applied. But the manufacturers are not content with this. As in the case of Adrenalin, chemical tests are seconded and reinforced by physiologic tests. Rabbits and other animals are used for the test. Should an antravenous dose of 20 to 25 milligrams per kilo of body weight will the animal, the drug is rejected, even though the chemical test may have shown it to be pure. On the animal test basis, the lethal dose for a man weighing 68 kilos, or 150 pounds, would be at least 1300 milligrams (1.3 gm.), **thirteen times the recommended intravenous** dose. The practical safety of Mercurosal in the recommended dose seems therefore to be assured. As to the efficiency of this dose, the clinic alone can furnish the necessary data, and we understand that the manufacturers have reprinted some illuminating clinical papers on this subject.

Patrons of the W. G. Cleveland Co. will be glad to know that Mr. W. G. Cleveland, who founded the company bearing his name, and who was instrumental in developing it into one of the leading supply houses of the middle west, is again at the head of the Cleco organization. After a prolonged absence due to a severe physical breakdown, Mr. Cleveland is back on the job, with renewed health and strength, and a determination to place Cleco on an even higher plane than before.

AN examination of some of Sherman's Vaccine* prepared **Ten Years** ago showed no apparent deterioration nor autolysis.

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*This vaccine was in druggist's stock in the regular way and recalled as outdated.

WHEN the Creator had made all the good things, there was still some dirty work to do, so He made the beasts and reptiles and poisonous insects, and when He had finished, He had some scraps that were too bad to put into the Rattlesnake, the Hyena, the Scorpion and the Skunk, so He put all these together, covered it with suspicion, wrapped it with jealousy, and marked it a KNOCKER.

This product was so fearful to contemplate that He had to make something to counteract it, so He took a sunbeam and put in it the heart of a child, a brain of a man, wrapped these in civic pride, covered it with brotherly love, gave it a mask of velvet, a grip of steel, made him a lover of fields and flowers and manly sports, a believer in equality and justice, and called it a BOOSTER, and ever since mortal man has had the privilege of choosing his associates.

SEDATIVES IN NEURASTHENIC STATES

An important item in prescribing a sedative in any neurasthenic condition is to choose one that while potent will not cause depression or induct habit-formation. The moral resistance of many of these patients is broken down and addictions are easily fixed. In Pasadyne (Daniel) the physician has at his command a sedative agent of marked value in neurasthenic states. It has the therapeutic potency needed in these cases and possesses the added advantage of not causing any evil-effects. It does not depress the cardiac function. For purposes of sedation in all cases, especially in women and children Pasadyne (Daniel) will prove of satisfactory power. A sample bottle may be had by addressing the laboratory of John B. Daniel, Inc., Atlanta, Ga.

A BROMIDE PREPARATION OF UNUSUAL MERIT

As a result of its powerful sedative action with the production of minimum of evil effects, Bromidia (Battle) has come into wide use in those cases requiring a sedative mixture of marked potency. Bromidia (Battle) is a well balanced, carefully prepared combination of the purest drugs and possesses merit far above that of extemporaneously compounded bromide mixtures. It reduces nervous tension, brings about refreshing sleep and will be found an ideal agent in sleeplessness. Owing to its purity, Bromidia (Battle) is of special use in cases where the continued use of the bromides is necessary. Its popularity with exacting physicians has resulted from its unusual worth as a sedative agent.

WHAT IS BRIGHT'S DISEASE?

It is an inflammation of the tiny cells that make up the kidney. These cells, when they are healthy, have the ability to pick out of the blood certain poisonous impurities which they excrete in the urine. But when the cells are hindered in their work by disease, the impurities, of course, are not so readily eliminated from the blood. That's what causes nearly all the disagreeable symptoms of Bright's disease and constitutes a real danger. How does Mountain Valley Water act in these cases? This pure, sparkling water, direct from Hot Springs, Arkansas, contains certain mineral salts which tend to soothe the inflamed kidney cells. Besides allaying the inflammation, Mountain Valley Water increases the flow of urine and also increases the output of blood impurities. In this way is the danger of Bright's disease largely overcome. As soon as the poisons begin to be eliminated in normal quantities, the patient notices a gradual disappearance of such symptoms as swelling feet, headache, dizziness, spots before the eyes, inability to concentrate on work, stomach disturbances, shortness of breath, and high blood pressure.

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Dyschezia—A, dilated ampulla of rectum; B, hypertrophied rectal valve; C, sigmoid. From **"Diseases of the Digestive Organs,"** by Chas. D. Aaron, Sc.D., M.D., F. A. C. P.

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MEDICINE—SURGERY—PHYSIOTHERAPY—X-RAY

Published Monthly at 115 East Thirty-first Street, Kansas City, Mo.

An Army Delivered from Exile and Suffering

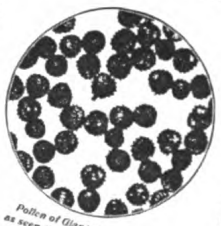
Thousands of hay fever victims, who formerly had to banish themselves in distant parts or suffer at home, are now finding relief through systematic treatment

More than one million persons in the United States are affected with hay fever, a disease described as due to an over-sensitiveness to pollens.

Pollens are the dust-like particles which Nature provides for fertilizing trees, flowers, weeds, grasses, etc. They are carried from plant to plant by the wind, insects and other agencies.

The wind-borne pollens are the most serious offenders and, when inhaled by an over-sensitive individual, they cause the mucous membranes of the nasal passages to become congested, the eyes to water and burn, incessant sneezing and a combination of symptoms which make the victim miserable.

If you are a hay fever sufferer, if you are over-sensitive to pollens, you may have yourself ***de-sensitized*** by proper treatment, save time and money, avoid the inconvenience of enforced travel, and attend to your regular business or duties without suffering the usual distress of the hay fever stay-at-home.



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The results from this form of treatment show about 25% of the cases completely relieved, 50% made comfortable and the remaining 25% not materially helped. You have at least three chances out of four of being benefited.

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Vol. XLII JUNE, 1923 No. 6

Original Contributions
(EXCLUSIVELY FOR THE MEDICAL HERALD)

THE LEYDENIZED MORTON WAVE CURRENT

By S. GROVER BURNETT, A. M., M. D.,
Kansas City, Mo.

"ONCE upon a time," sitting, leaning on the amphitheatre rail, pondering over what I had heard, after the audience had mostly departed, the speaker approached me, touched my arm and said, "I see you are interested."

"Very much," I replied.

The speaker was Prof. W. J. Morton, the son of his illustrious father of Boston, whose heritage to our profession was his contribution to the subject of anaesthetics. Dr. Morton invited me to his laboratory and soon I was listening to his fundamentals which have since enlightened the subject of statics and fairly revolutionized the use of high voltage electric currents minus amperage, namely, the Morton Static Induce current and the Morton Wave Current. And here, as Dr. Morton's clinical assistant, I became interested in wave currents. More than 25 years ago, before the old Rialto building burned, with some surrounding office associates, I spent idle hours in demonstrating a wireless wave current, deflecting it by using large concave cardboards, placed at certain angles and in this way the audible wave was passed along some 60 to 100 feet (all the space we had). And where we went to sleep Marconi wakened up; this much is reminiscence.

The thought offered in this paper concerns the Morton Wave Current in emphasizing its usefulness by varying its modality to intensify its deep effect. An especially dependable machine is required to produce and maintain a wave current, so waste no time on small and inferior machines. No machine not permitting full grounding at all times is practical or efficient. The electro-therapeutic pretensions of unlettered or unprincipled men, fooling themselves and their patients with a vest pocket type of static machine, have delayed therapeutic progress a half century. Just a peep at an office equipment tells an efficient worker the quality of work being done; whether it is of the "Good morning, glad you came, come again" type or whether the equipment capacity will meet any requirement from systemic-submetabolism, sub-temperatures, acute and chronic congestive or inflammatory states, superficial and deep conditions and the follow-up deep and systemic treatment of hypertension and a large number of conditions not necessary to mention here.

Read before the Western Electrotherapeutic Association, Kansas City, April 20, 1923.

The Machine and Connections

For the light and intermediate office work a machine with twelve revolving circles of the Van Houten and Tenbroeck type will do fair work if in good order and protected against moisture and heat. In humid weather it will not permit of grounding at all times. It will do light Morton wave work but should not be depended on for wave treatment. A machine with 16 revolving circles of the same type will meet all treatment requirements.

My method of producing the Morton Wave and connecting of patient is as follows: First an insulated platform with glass legs 9 to 11 inches long. Short legs will permit grounding from the platform. Second, heavy block tin or zinc foot plates (5, Fig. 1) are thrown under the chair, covering the back of the platform, but placed so as not to come in contact with the patient's heels. They act as a crude condenser but the chief purpose is for the connecting rod (4, Fig. 1) to loosely rest on it while connecting the insulated platform and patient with the positive pole of the machine to which the other end of the connecting rod is attached. Also the electrode to the patient has a light chain (6, Fig. 1) and the loose end of this chain drops down and lies on the metal plates under the chair. I always show a new

patient that she is not chained or wired fast to anything and that simply stepping from the platform releases her. This relaxes her apprehension and may avoid entangling accidents.

When the patient is seated, moisten the surface of the metal electrode placed to the skin and there will be no pricking sparks to alarm a new patient. The machine already charged, with slide rods a half inch apart, ground the Negative Pole and gently start the machine and slowly open the spark gap. The patient's comfort is a safe guide in general treatment To get the first systemic dosage the patient sits with the hands palms together and when they show moisture, indicating general vasomotor relaxation, that is your dose for future guidance, having noted the time, spark gap and speed of the machine.

The Wave Current

The books tell the beginner much about potentials, high-potentials, potential delivery, amplitudes, oscillations, capacities and intensities. It's well to know these, like the foreign language we studied in college but did not use and forgot it because we remember only what we use and we use the language of our native association.

So imagine, in plain language, the patient arranged on the platform for a constitutional wave treatment, is like a sponge tossed into a tub of water, she becomes saturated. She is immediately saturated by being positively charged, a one polarity charge, and continues to be discharged and recharged by the activity of the spark-gap. And as the spark-gap is long or short and the machine speed rate is minus or plus, all potential variations and deliveries, oscilations, frequencies, capacities, intensities, et cetera, may be studied, if you speak the language.

But while the patient is saturated, while there is constant discharge and recharge, back and to in the tissues, the current seeking the path of least resistance, every cell element and its molecular and atomic chemistry undergoes a rejuvinating stimulus that sets every ganglion cell of the central nervous system into a chemic house-cleaning activity; this irritable, grouchy cell, undertoned, underfunctioned, undernourished, with its indigestion and constipation, retained self-poisons, is made to eat and drink and digest and assimilate and flush its excretory channels by restoring the normal chemistry of the secretions essential to a physiological balance of function, metabolism and katabolism.

And yet some claim the action of the static current on tissue structure is mechanical and the general benefits to a patient is psychical. The excuse for assuming a mechanical action is the contractions induced in muscular structure. The fact is that no muscle fibric ever undergoes contractility without first receiving a chemic stimulus, physiologically or electrically administered. It's not the actual reception of the stimulus by the muscle itself that causes muscle contradiction, but it's the inception of the chemic impulse by the sensory nerve end-organ, a protoplasmic body, in its circuit forming relation to the motor-end plate, another protoplasmic body, and both being an anatomical part of every primitive fibrillae of every muscle structure. Without these nerve end-organs there could be no muscle contractility, making the motor response to electrical stimulation impossible as a mechanical phenomenon. Every neurone begins and ends in a protoplasmic structure, the sensory ingoing fibrils and the motor out-going fibrils forming the circuit of expression. To say the action of a current is **psychical** simply means the speaker is ignorant of the subject matter; he is to small to say "I do not know."

In electrotherapy we are ever dealing with the unclarified field of the wonders of chemistry. The combination of the dry, the acid, the oxygen and the wet, the caustic, the hydrogen, polarities must be dealt with. Their electrolytic activities vary according to the hyper or hypo intensity of the amperage. A current of two million volts with but fourteen milliamperes showers the tissues with electrons that therapeutically must approach the chemistry needs of the tissue repair. Does an indeterminal degree of electrolytic action disprove its presence? We generate no eelctricity but gather it from our surroundings by provoking a change in the elementary chemistry of the environment. And in all this discussion the beautiful but still irradiant dream is to reduce amperage currents to a negligible milliamperage current and to raise its small voltage to a super-voltage current. Why? Simply trying to chemically twist the amperage current, gathered from nature, back to nature and still keep it within our grasp, a refined and perfected static current, minus aperage but possessed of the therapeutic chemical wonders a hundred years away—perhaps?

Tesla's Unconscious Hint

How many remember Tesla's criticism of the report of the committee assigned to perfect the procedure of electrocution in New York: 1,600 to 1,800 volts were considered a death dealing current. Out of the discussion, ridiculing voltage as the designating factor of the current to be used, grew the public demonstration wherein Tesla stood, fire spraying from his finger tips, in perfect comfort, enjoying a half million volt seance. In his discourse he is said to have orally computed in fifteen figures in his estimate of the atmospheric voltage in

vhich we constantly live and upon which we ıre ever dependent for the functional activity ›f the bodily organs within our beings to sus-ain life. This being true, some of us decided hat when our patients were no longer able to eact to nature's high voltage stimulus we vould make a machine with voltage so high hat we could drive it into them by machinery. n other words the nearer our therapeutic cur-ents reach an almost incalculable voltage with ı negligible milliamperage the nearer we are giving back to our patient something he has ost that bars him from the sea of the self-serv-ng pabulum of life in which he lives. And the Morton Wave Current is our nearest instru-nent of delivery.

The Leydenized Morton Wave

The Leydenized Morton Wave is the intro-luction of the Leyden jar into the Morton wave circuit. Attaching it to the negative pole ›f the machine will give two modifications of the Morton Wave. First, by grounding the negative chain from the base of the jar (3, Fig. 1), the inferior negative grounding. This slows the regular Morton Wave a little and detracts from the fineness of the spark and adds some force, potential, to the charge and discharge act of the spark-gap. Second, by grounding the negative chain from the top of the jar (1, Fig. 1), the superior negative grounding. the spark loses its fineness, becomes a heavy, vicious spark with marked increase of poten-tian in its stroke.

And a third modification is obtained by grounding the negative pole in the usual way, removing the negative jar, attaching a jar to the positive pole (2, Fig. 2) and connecting the patient with the positive pole as usual (3, Fig. 2) at the top of the jar. This gives a powerful, heavy, slowed down wave, increased in poten-tial and intensify, much more than the nega-tive Leydenization.

Therapeutic Indications

The indications for the leydenized current are conditions of local, deep-seated organs that must be reached by a more powerful and more penetrating current than the regular Morton wave, and especially where a general systemic

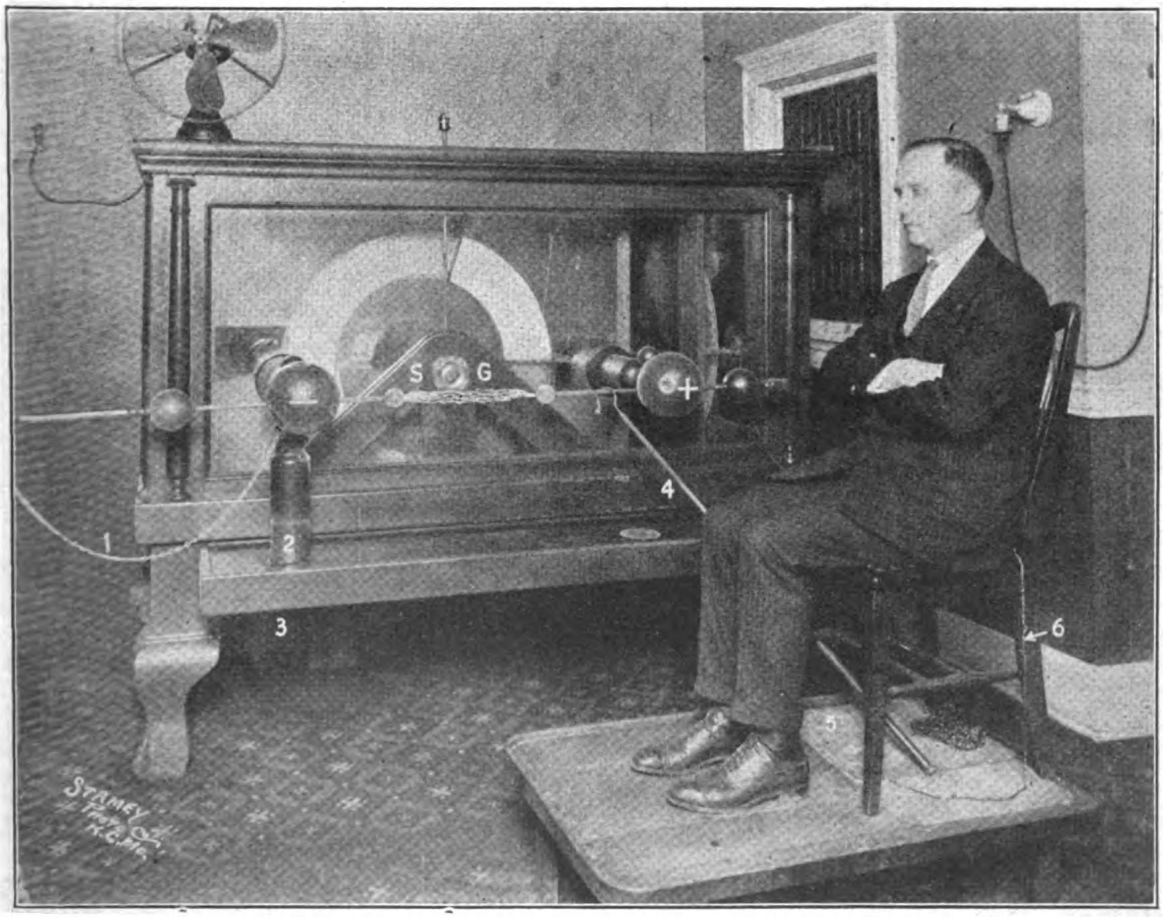


Fig. 1—NEGATIVE LEYDENIZED MORTON WAVE CURRENT

1, Negative Ground for Superior Leydenized Current. 2, Negative Jar. 3, Ground Chain Attachment for Inferior Leydenized Current. S. G., Spark Gap (Flash Light Exposure). 4, Positive Rod Resting on Plate, 5, Under Chair. 6, Chain on Plate, 5, to Electrod on Patient's Back for Deep Penetration.

effect is to be made also. For reaching the hepatic depths it is unexcelled. We know today that distressing hepatic symptoms lead to operations for duct and cystic occlusions, looking for calculi that are not there and not found, and ending the operation with a drainage provision. After 45 to 60 years of age, going down the physiological toboggan at a 30-year-old speed rate, metabolism low, katabolic chemics retained, fatigue creeping in on an acidosis background, gastric hyper-acidity, duodenal gas and phantom gall stones, much nervousness, face has an aged, pinched expression, has insomnia, has probably lost weight and what else? He has commercialized his tissues. He is a physiological bankrupt in the midst of the male climacteric, headed for an ambitious surgeons operating table, to be operated for what? I would guess about $300.00.

What's to be done with such a man? Head him off, slow him down and park him in the sunshine, mentally and physically; rest him, sleep him, feed him judiciously, alkalinize him indefinitely, neutralize the systemic acidity that's molecularly seniling all tissues. While this is going on pound the liver and duodenal region with the superior negative Leydenized Morton Wave daily. Drain the deep, local tissues and at the same time influence the systemic metabolic and katabolic chemistry as nothing else can do. This is practicing real medicine.

Again in blood pressure reduction many of us are regulating diet, advising generally, giving a few autocondensations and leaving the patient to do the rest. My experience is, the work is not half done. The cause of hypertension may be below the diaphragm, probably as good a guess as any, but we still have to do with the sensory nerve proto-plasmic end-organ to every muscle fibril of the arterioles, receiving abdominal peripheral stimuli, toxic, irritative or not, in the blood stream or not, conveying in hyperfunction to the ganglionic cells of the central nervous system, tangentially transferred to the motor neuron, outgoing to the motor protoplasmic end plates spread out on the naked muscle fibril, stimulating the arteriole muscle to contraction, nar-

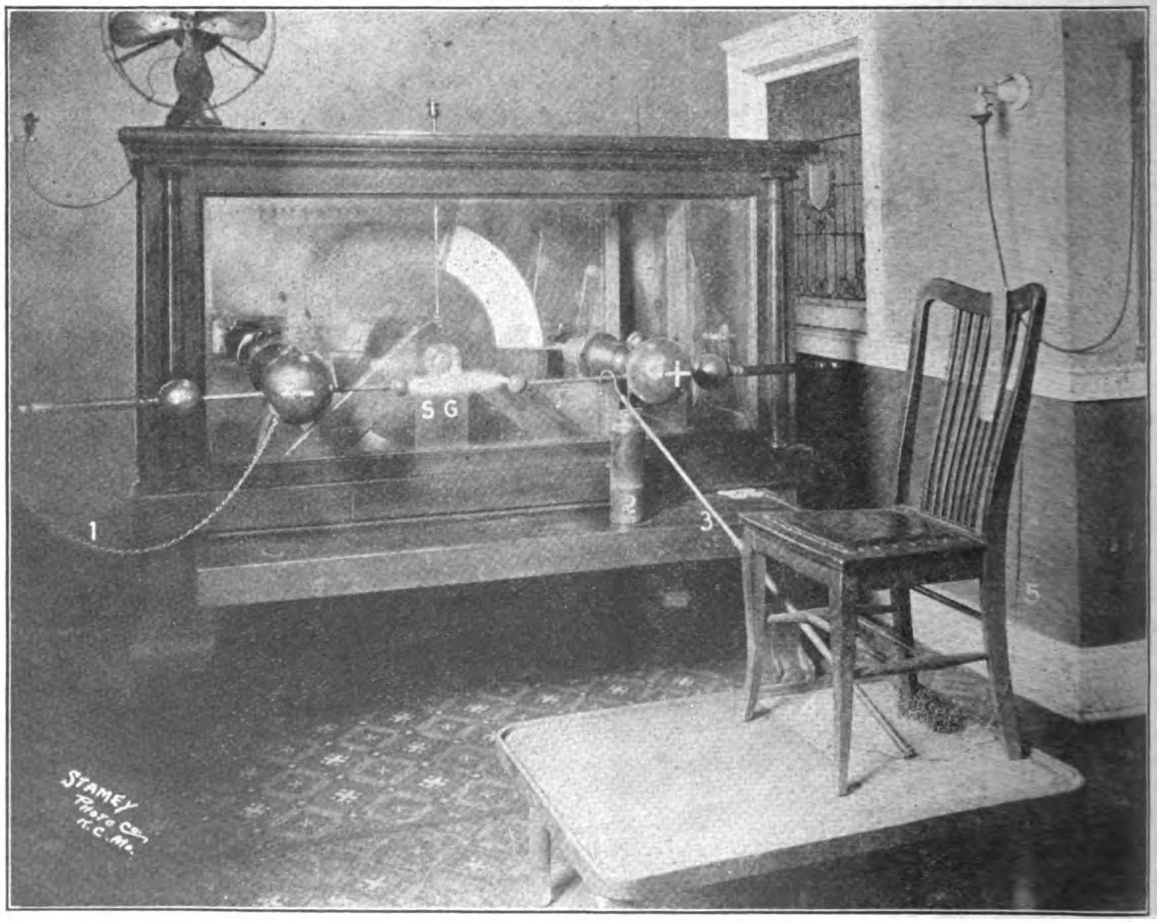


Fig. 2—POSITIVE LEYDENIZED MORTON WAVE CURRENT
1, Neg Ground. S. G., Spark Gap (Time Exposure, Fluff Spark. 2, Positive Jar. 3, Positive Rod on Plate, 4, Under Chair. 5, Chain from Plate, 4, to Spinal Electrod, 6, on Back.

owing the arteriole outlet and increasing vessel tension.

And there is a vicious circle. Whether it is of the central nervous system, primarily, built on a defective biological base, or, an acquired exhaustive habit state with a disintegrating chemistry, or, whether it is purely a chronic systemic proteid poisoning, the lesson is that no few autocondensation treatments alone can remove the chemic, vascular and neuronic damage done. For this reason my vigorous treatment to overcome this damage begins after the hypertension is reduced. A careful check is kept on the blood pressure and the patient is shifted from the autocondensation to the leydenized Morton Wave. The electrode is placed over the lower dorsal region. If the patient is of the medium size the superior negative grounding (1, Fig. 1) is used and the spark-gap is gradually increased to ten or fifteen inches, representing a voltage of one to one and a half millions. If the patient is stout I often remove the negative jar, grounding the negative pole as usual, set in the positive jar, connecting the platform rod (3, Fig. 2) to the positive pole above the jar. It takes a heavier spark stroke to penetrate the heavy walls of heavy people, than it does to penetrate the lighter walls of smaller people. The spark-gap dose and intenseness of the treatment and the time dose of the treatment must be fitted into the patient's time and degree of reaction to the current. Fifteen minutes may suffice for the first few treatments. After that twenty minutes is the average time. When vasomotor reaction shows with slight moisture, that is sufficient.

In hypertensions it's my plan to follow up with this treatment for a period of two to three months, giving four to six treatments a week. After this the patient is instructed to report once in three months for a year or more for observation and a month's wave treatment, if necessary. There is the constant tendency to the formation of a molecular lesion of nutrition in the tunica media (the muscular tunic) in hypertension and eventually the sensory and motor end-organs are dysfunctioned, the muscle fibrils lose their contractility and expansion, the interstitial lymph space is destroyed, round cell proliferation with its follow-up cicatricial tissue to impinge on and destroy the tunica intima and then we have hard, inelastic, non-vibrating, tortuous vessels with lessened caliber and probably saculations—arterio-sclerosis, ambition's doom! The leydenized Morton Wave is the medium of prevention. The systemic metabolized chemistry must be re-established and maintained and no half-hearted therapeutic regime will do it.

A case of laryngeal flu had a strangulating cough simulating a foreign body in the larynx, a cough that expelled the residual air and left the patient prostrate. Following a paroxysm of coughing the heart suddenly jumped from normal to 120 and remained 110 to 120. Digitalin given for three days kept the heart beat at about 96, when, like a thud, the heart beat dropped to 40 and would keep missing beats for a period of ten to twenty minutes, the patient saying he felt stunned. The digitalin was discontinued but the sudden heart drop and the missing beats continued at intervals. But in addition to the heart block a deep, heavy sore pain, a pericardial pain, developed. Any slight exertion increased the pain and marked exhaustion and shortness of breath were present. The feet and legs were swelled but urinary findings were negative. Strychnia relieved the ugly exhaustion and breathing some but the heart pain was a disturbing factor. A lead electrode, moulded to fit the cardiac chest area, was used to apply the superior negative leydenized Morton Wave daily for twenty minutes, using a million-volt current. The pain relief was beautiful and in two weeks short walks were admissible.

In low blood pressures I am using the leydenized current over the large arteries and directly over the heart in myocardial inefficiency. Acute, incipient, pleural pains, intercostal pains and acute lumbago are all relieved by giving the current at once and going deep down into the tissues. After an inflammatory base is established in the tissues immediate relief of pain is not to be expected.

A REVIEW OF ONE HUNDRED CONSECUTIVE CASES OF HEART AND BLOOD VESSEL DISEASE

By JOHN A. RODDY, M.D.
Oklahoma City, Okla.

A BETTER knowledge of the early subjective symptoms and physical signs of cardiac and vascular diseases is the present desideratum in this field of medicine.

Roentgen ray, electrocardiograph, blood, urine and metabolism studies have increased our knowledge of the pathological processes in the early stages of these diseases. Careful inquiry and observation of physical signs in conjunction with X-ray, graphic and urine findings, will eventually establish a superior conception of the early symptoms and physical signs. Then, from an analysis of the patient's subjective symptoms, elicited by proper inquiry and examination of the patient with the

Read before the Medical Association of the Southwest, Hot Springs, Ark., October 16-18, 1922.

trained eye, hand and ear of the physician, aided by such simple instruments as are always available, cardiac and vascular disorders will be detected earlier in their course than is common at present. This paper is a summary of such a study.

Group I—Hypertension, 28 Cases

Two of these patients were over 60 years of age and had in addition to hypertension advanced myocardial and renal degeneration and arteriosclerosis; nothing in the history or findings gives any information as to which was the initial disorder or first symptoms. The others yielded the following information believed of value in making an early diagnosis:

(a) The first symptom was frequent headache through a period of about six months, after which the headaches became less severe and less frequent. In about half the cases headache ceases to be a symptom after the first year.

(b) In most cases the second symptom was a sensation of fullness in the head and occasional consciousness of intracranial pulsation, in some cases this was accompanied by transitory dizziness, increased mental irritability and reduction of ability to sustain concentration of mind.

(c) Cardiac consciousness or periods of palpitation were common to all and began, rarely before the above, usually several months or years after.

These symptoms occur with a regularity that makes them significant; they are believed to be actually early symptoms, not only on account of the regularity with which such statements are elicited from patients, but because they were the only symptoms and were all clearly present in those cases—four—in which the physical and other findings precluded long duration.

As to early physical signs little can be said. All these cases were cryptogenic. Application of the sphygmomanometer showed abnormally high pressure in all but two cases at the time of first observation and constantly thereafter. The two patients who did not constantly have high pressure were well preserved men of 42 and 50 years of age; when at rest, away from work for several days, without other change in mode of life, each showed normal pressure; when working in their customary manner, one had high pressure constantly, the other intermittingly; symptoms were mild in both cases. These two were considered moderately advanced or prolonged on account of the cardiographic and urinary findings.

It is assumed that idiopathic hypertension, the only type herein discussed, has passed the early stage when cardiac changes have been produced. Electrocardiographs showed preponderance of the left ventricle in all but three cases—a man of 25 who has had a blood pressure of 140/90 for five years, with gradually increasing symptoms, mental impairment, but no physical impairment or physical signs; a woman of 45 who has had a pressure of 160/100 for at least four years, with intermittent symptoms and recently slight dyspnoea on exertion; a man of 48 with a pressure of 145/90 with symptoms during the last six months only.

The earliest deviation from normal found on examination (present in all cases of this group) is an abnormal increase in the amount of urine excreted between 6 p. m. and 6 a. m., amounting to 40 per cent or 50 per cent of the total 24-hour quantity.

Group II—Chronic Aortitis, 14 Cases

The patients in this group were all males, from 32 to 50 years of age. One patient, obviously in a far advanced stage of the disease maintained that he had been free of any symptoms until six months before coming under observation. The others had had symptoms from six to twenty years. The earliest symptoms common to the majority (ten) were:

(a) Occasional cardiac consciousness or distress.

(b) Occasional precordial pain, most severe when occurring while in bed or eating.

(c) Occasional or continual inability to sleep on left side.

Sudden, excruciating pain radiating from the heart to the left shoulder or shoulder and arm, or up the left side of neck, was experienced at intervals by all patients in this group who had had symptoms for fifteen years or more, and was not experienced by those who had had symptoms less than ten years.

Such attacks, commonly referred to as angina pectoris or pseudoangina, are always late manifestations of aortitis, seldom occurring before myocardial degeneration is evident, they may occur daily or several times a month for months or years, whereas the few cases of true angina pectoris I have seen (five in fifteen years) had few attacks at longer intervals, none of them more than seven, all more severe than the paroxysms of aortitis.

When the aorta is enlarged, as it was in eight of these cases, percussion cannot disclose the enlargement in half or more of the cases, and fluoroscopy is most desirable. There is no other distinctive sign occurring with sufficient regularity to lend it diagnostic value. Physical signs of lues were observed in three of these patients; a weakly positive Wassermann was obtained in five, yet there were reasons for believing that syphilis was the cause in nearly every case, including improvement under anti

syphilitic treatment after being refractory to other treatment.

Group III—Arteriosclerosis, 12 Cases

Only those cases in which arteriosclerosis was not associated with cardiac or renal abnormalities sufficient to produce symptoms or affect the body in general, and in which the systolic pressure was normal or subnormal, are included in this group. Analysis of the facts in these cases indicates that arteriosclerosis, per se, produces no symptoms; that symptoms occurring in the course of this disease emanate from tissues and organs suffering from an interference with their blood supply or circulation.

Arteriosclerosis does not affect all the vessels in a patient, and among the vessels affected in a particular case there are marked differences in the extent of impairment, consequently symptoms may be most diverse. The parts most sensitive or most frequently affected are the brain, the digestive tract and the extremities, particularly the lower extremities.

Vertigo is the earliest symptom in nearly all cases; it may be the only symptom for months or years; it was the predominating symptom throughout in two of the cases of this group.

Sometimes after the onset of vertigo, or at the same time, abdominal symptoms develop in the majority of cases (eight of this group), at first periods of anorexia, usually slight, a sensation of fullness after moderate eating, belching and perhaps flatulence. Later there is loss of weight and periods of nausea with localized pain, and sometimes tenderness, usually referred to the stomach, sometimes to the gall bladder or liver, occasionally to the appendix. In seven of these cases such symptoms mislead experienced observers into making the following incorrect diagnosis: choleliathiasis 2, carcinoma of the stomach 2, gastric ulcer 3.

The history in four of these cases indicates that occasionally, after several years of gastric disturbance or palpitation of the heart, symptoms subside or disappear entirely for years, until renal or cardiac decompensation occur. One of the patients in this group had such a remission for 5 years, one 10 years, one 15 years and one 20 years, the latter being 84 years old at present and ambulant.

In the absence of heart block the pulse becomes fast early in the disease and continues so; this is the only constant sign appearing early and common to all.

Those cases in which abdominal symptoms predominated, and in which prolonged nausea and vomiting were the terminal signs, at autopsy showed the greatest vascular change in the celiac axis, which was thickened, narrowed and calcified.

Equalization of the night and day urine occurs early in arteriosclerosis and may be the only evidence of renal abnormality for years. The heart may continue unaffected or but slightly affected for years, sooner or later myocardial insufficiency becomes an important factor.

In the majority of cases of hypertension and of arteriosclerosis, at the time when symptoms are first complained of, very often when all other methods of examination fail to disclose any cardiac abnormality, the electrocardiograph shows distinct preponderance of the left ventricle.

Group IV—Cardio-Renal-Vascular Disease, 10 Cases

In this group are considered those presenting signs of arteriosclerosis of long standing, advanced myocardial degeneration, and marked renal impairment. This particular group, on account of senility, poor memory and absence of definitive signs fail to disclose which was the original seat of disease—heart, kidneys or vessels—but it seems probable that the renal and cardiac changes were secondary to the vascular changes in the majority, if not in all cases.

Group V—Valvular Disease, 32 Cases

Aortic regurgitation, 9 cases, 8 male, youngest 35, oldest 51 years, shortest duration of symptoms prior to examination 1 month, longest 4 years. The Wassermann test was positive in 6. One case was apparently of rheumatic origin, streptococcic. Electrocardiographs showed left ventricular preponderance in every case.

Mitral regurgitation, 3 cases, all female. youngest 30, oldest 61 years; shortest duration of symptoms before observation 6 years, longest 20. There was a history of rheumatism in all these cases and the Wassermann test was negative in all. Myocardial degeneration was far advanced in all cases when first seen. The shortest duration of the disease before first signs of myocardial failure was 7 years, the longest 18 years.

Mitral stenosis, 12 cases, 3 males; youngest 18, oldest 46 years; shortest duration of symptoms prior to observation 10 years, longest 30 years. The Wassermann test was positive in one, three gave a history of rheumatism, the condition was apparently congenital in two. There was no distinct evidence of the etiology in any of these cases. Patients seem to sustain this form of heart disease better than any other.

The common deficiency in our treatment of valvular disease seems to be this: a valvular disease recognized early in life when the patient is able to sustain normal activity with few or no symptoms is noted, the patient in-

formed, given a feeling of safety and a few indefinite instructions, such as, "avoid sudden physical efforts and prolonged physical strains, and come back if it ever bothers you."

Usually the doctor does not see the patient again until sustained myocardial strain has effected myorcardial degeneration. If these patients are kept under observation, examined once or twice a mouth throughout life, and their activities properly regulated, compensation is maintained for a much longer period, life, comfort and ability to work prolonged.

These cases were observed particularly for evidence of the typical facies of mitral stenosis and aortic regurgitation, as described by Russell-Wells, and the following distinctive features were found in every advanced case. Mitral stenosis, lips and mucous membranes cherry red or purplish, cheeks bluish, pink, slightly dilated venules on face and elsewhere, eyes watery, not infrequently pinkish, dyspnoea on slight exertion.

Aortic regurgitation—No signs of cyanosis, face pale, perhaps sallow, eyes bright and rather staring, the whites pale or bluish, cheeks sunken, lips and mucous membranes red or pale, not bluish, dyspnoea not easily evoked.

Combined valvular diseases with cardiac and renal degeneration 8 cases. The remarkable factor in this group was the relation of cardiac to renal deficiency. These were all cases of long duration, with one exception all elderly persons, and cardiac insufficiency was rapidly approaching the fatal point, yet the renal impairment in no case, of itself, would have been incapacitating.

Group VI—Cryptogenic Myocardial Degeneration, 2 Cases

These two cases occurred in males in the fourth decade of life, both greatly overweight; one gave a history of post diphtheritic paralysis; the other denied any previous illness; both had used alcohol to excess; aside from these questionable factors there was nothing suggestive of the cause.

Group VII—Cardiac Neurosis, 2 Cases

Originally there were 8 cases in this group, all in the third decade of life, 6 males. The symptoms complained of were: In 2 cases irregularity (extrasystoles) only; 5, tachycardia and syncope; 3, tachycardia followed by a sensation of the heart stopping just before spells of syncope which is followed by actual bradacardia for several hours, in one case days.

The final and correct diagnosis in 6 of these cases was as follows: 2, pulmonary tuberculosis; 1, dementia precox; 1, mitral stenosis; 1, acute pericarditis; 1, rheumatoid arthritis. The two cases still retained in this group for lack of better knowledge can regularly bring on heart trouble by an amount of physical or mental effort or indulgence in the use of coffee or tobacco, well within the capacity of normal persons. When these exciting causes are avoided there are no symptoms and no signs other than a pulse of 80 at rest and 100 on mild exertion.

It seems to me that the diagnosis "cardiac neurosis" in any case is as inadequate as its older counterpart, "hysteria," and that anatomic deficiency or injury somewhere in the body may be a factor in most of these cases.

116 West Fifth Street.

ACTINIC RAY THERAPY IN SURGICAL AND GYNECOLOGICAL WORK

By A. DAVID WILLMOTH, A. M., M. D.,
Louisville, Ky.

THE mission of the true physician may be classed under three great heads. Viz., to save life, relieve suffering and restore function. To measure up to the full standard of these requirements it becomes his imperative duty to use every agent, and every modality of every energy known to science.

The medical profession has been a bit too slow in the use of physical means which for many years has been largely in the hands of impirics. No one is as well prepared to scientifically use and judge the results of these various agents as the physician. He and he alone is qualified to use them as they should be used.

If these measures had not possessed merit they could not have withstood the ravages of time and condemnation that was until recently heaped upon them. The dawn of a new day was breaking when the World War hastened and made possible, and unfortunately for those injured created the material and the demand for everything to be done to not only relieve suffering, but restore function to those disabled. It was here that physical agents found the opportunity to emerge from a doubt and criticism under which it had lived, to a broad, solid and substantial place in the field of medicine.

From time immemorial even the laity, let alone the physician, knew the advantages of sunlight on many conditions which the human family fall heir to. It was well recognized that the difficulty lay in obtaining it in sufficient quantity to be of service when and where it was most needed. It remained for the scientist to tell us what the beneficial effects were due to, and supply this in a practical manner.

The Actinic Ray today has a well established

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ld of usage in the hands of everyone treating seases.

To Rollier of Leysin, Switzerland, and Fin- we owe the credit of the earlier work. A mber of others working along this line veri- d the findings of these men, and added to ir knowledge of the use and value of these ents. The present day work is largely due to r own Pacini and Plank who have done so ch to standardize and make practical this dality. After many months' use of the tinic lamp where its virtues could be tried h day, and an accurate chart kept of the e and distance used in the treatment of each ticular case the writer feels that it fills a y important position in the armamentarium every surgeon and gynecologist. An agent able of destroying infection, painless in its lication, and with such a slight risk of do- any serious damage should attract atten- n.

Where infected areas can be exposed to the tinic light our experience has been that it be fully depended upon to not only destroy infection and leave behind a healthy base, will still further aid in a rapid and satis- tory closure of the wound. This also means inimum amount of scar tissue. Which is ays to be desired.

Like many others using this agent, we found t under all circumstances gross amounts infected materials should, if possible, be oved by surgery before beginning the light atments. If no local anaesthetic agent is at d, or for any reason it is not desirable to it, a very satisfactory result can be had the use of the light high-frequency spark go- rapidly around the area involved, and grad- ly increasing the force of the spark up to point of tolerance, when little or no pain l be felt when incising, and removing the of a furuncle, or carbuncle, which should done by the surgeon immediately after the rking has been discontinued. When the is once removed you have access with your p to the infected field, and only a few treat- nts is needed to destroy all pyogenic or- isms, and none but those who have tried it fully appreciate the rapidity with which condition will close, and the small scar that l be obtained. Like all medicinal agents we uld know as accurately as is possible to ob- n. the strength of the agent used. In our n work we have tried to measure our lamp the actiniquanameter. A very satisfying ught to those not experienced with testing t. is that no great damage can result even ugh it is used longer, and at closer distance n is really necessary to obtain results de- ed.

The properties of the water-cooled lamp are as follows:

First. Far ultra-violet.
Second. Dominantly abiotic (bactericidal).
Third. Chemically reducing.
Fourth. Relatively superficial.
Fifth. Metabolic depressor.

The lamp should be operated at about fifty to fifty-five volts. A free circulation of clear water is imperative. This makes the portable unit more desirable as it operates with its own tank of distilled water. This not only insures a steady flow of water to condense the mercury vapor (and not to cool the lamp as some suppose) but insures no impurities passing in front of the uviarc which act as filters.

From the surgeon's standpoint, in fact, the best known energy of the water-cooled lamp is its action on organisms. When used at two hundred millimeters. Pacini tells us the results will be as follows:

	Seconds Required to Kill
Diplococci—	
Gonococci	6
Meningococci	6
Straphylococci—	
Pyogenes albus	10
Pyogenes aureus	12
Streptococci—	
Viridans	14
Hemolyticus	18
Mucosus	25
Pneumococci—	
Group 1	25
Group 2	20
Group 3	25
Group 4	15
Bacillus—	
Influenzae	18
Diphtheria	10
Tubercle	12
Leprae	15
Colon	18
Typhoid	18
Dysentery types	20

—Pacini.

It has been proven that water exposed to the ultra-violet rays retains its antiseptic properties for more than an hour—"residual effect." When infection is superficial the effects of the lamp is direct, when imbeded in the tissues its destructive influences have to do with the immunitive changes on the serum, the white cell count, and the focal inflammatory defences. With the serum it must be remembered that too large a dosage coagulates the protein and defeats the effort for which it is used. This is especially to be remembered in treating mucous surfaces, small and often repeated doses being preferable, as it also possesses the residual effects after the exposure. The style of

applicator varies the time to some extent, thirty seconds being sufficient to destroy the most resistant with a half-inch tube, while ninety seconds are required with the tonsil applicator. The rays should strike the surface to be treated at right angles if possible, and must in all instances be optical contact. Its effect can be enhanced by the use on the surface to be treated of a photo sensitive substance, such as gentian violet, methyl violet, carbol fuchsine, methyl blue or green. These may be dissolved in water or glycerine, and one to one thousand solution. So also chlorine, bromine and iodine, when exposed to far ultra-violet give up their acidic ions. Where staining of tissues is feared, ten per cent solution of resorcin can be used. This is especially desirable in large ulcers.

If the water-cooled lamp is used for its systemic effect the distance must not exceed seven inches. In either the air or water-cooled the erythema produced governs the dose. The water-cooled lamp dosage for systemic effect, operating with sixty volts seven-inch distance. each area should receive the following time:

Erythema

	Stimulative		Regenerative		Desquamative	
	Light	Dark	Light	Dark	Light	Dark
Infants	3	4	6	8	10	15
Children	5	6	8	10	15	20
Female adults	10	15	20	25	30	40
Male adults..	20	25	30	40	50	60

Finsen first observed, and many others have observed likewise, that blood quickly absorbs the ultra-violet rays. To prevent this general distribution, where it is desired to reach a focal infection, as for instance in the mastoid, the tissues should be depleted of as much blood as possible. Here the large oval lens is used and pressed rather firmly against the skin to displace the blood and permit the deeper penetration. Thirty to sixty seconds is the length of time. In our own work forty seconds is the average. On mucous surfaces Adrenalin can be used to produce the anemia, obtaining the same results as the lens pressure on skin surfaces.

The uses of the air-cooled lamp to the surgeon are much more limited than the water-cooled. In the water-cooled lamp the mercury mantle which envelops the central luminescent beam is quickly condensed, leaving the ultra-violet energy free to issue from the lamp without being filtered through the mercury vapor. This produces a spectrum rich in short wave lengths, the opposite being true in the air-cooled. Here the rays must pass through the mercury vapor and much of the short waves are thereby filtered out, leaving a major portion of the energy of long wave length spectrum.

The comparative table of the two would be as follows:

Ultra-Violet Energy
(Mercury Arc)

1. Near ultra-violet intensity. Far ultra violet intensity.
2. Biologic (dominantly). Abiotic (dominantly).
3. Chemically oxidizing. Chemically reducing.
4. Relatively penetrating. Relative superficial.
5. Metabolic synergist. Metabolic depressor.

These fundamental principles involving the two lamps must be well understood, and constantly kept in mind if they are to be scientifically used, results obtained on the pathology that is to be effected.

Again quoting Pacini properties of the air cooled are:

First. Near ultra-violet.
Second. Dominantly biologic.
Third. Chemically oxidizing.
Fourth. Relatively penetrating.
Fifth. Metabolic synergist.

The above results are the effect of the long ultra-violet rays on the surface cells, and especially the nucleus. The capillary blood the lymph in the capillaries, and the nerve filaments in the region rayed.

The above conclusions can be proven by stroking the skin of the area that is being treated when it will be seen that the skin bleaches, then rapidly turns red.

With either lamp many conditions affect the results obtained. The thyroid type, being the blond, is affected much more quickly than the adrenal type or brunette. Sex and age also have a decided influence on the results obtained by a given exposure of a given distance. So also does the part rayed, the thin skin of the chest or abdomen being approximately twenty times more sensitive than is the thick skin on the palm of the hand or sole of the feet.

A rather imperical idea of the qualities possessed by the air and water-cooled lamp has caused a very great confusion, and in many instances the injudicious application. The properties of each must be known and their scientific application used if we hope to effect the pristine pathology which must also be understood.

The following cases represent a few classes that can be benefited by the Actinic rays:

Cases

Case No. 1. Mr. Pritchard, white, age 70, occupation railway inspector. Referred by Dr. Moreman of Louisville, Ky. This old gentleman had been suffering with a carbuncle involving the posterior aspect of the right shoulder for about two weeks. The area involved was near three inches in diameter and about one inch deep, with many opening from the puddle of pus up through the skin, making the typical honeycomb appearance that is so familiar in this class of

es. An examination of the urine showed no trace sugar, as is frequently found in these cases. Gen- l condition good. This patient refused to even sider going to bed, to say nothing of the consid- tion of going to the hospital, so it was decided to something for him in the office. He also asked t no local anaesthesia be used, as some one of his uaintances had had bad results from its use. With se objections confronting us we sat him down in a ir in the High-Frequency room and began the use i very light spark from the Oudin terminal, start- at one-half inch distance from the intense inflamed e, keeping this distance and going around the area olved in rapid succession, increasing the intensity he spark as fast as we felt he would tolerate, keep- this up for about three minutes. We were now : to incise the top of this puddle of infection and) to trim away the entire flap on each side that ered the field below. This left us with a wide n area to which we applied the water-cooled lamp five-inch distance for one minute and repeated its every day with one minute at three-inch distance. ifter the first application the field was practically : from pus and a clean granulating surface was left ind for closing, which it rapidly did in a few days, uiring only twelve lamp treatments to complete healing process. A surprisingly small scar was . This man worked every day and wore a heavy rcoat on his shoulder without seemingly having a ay in the healing. No other treatment was used ept dry aseptic dressings of gauze kept in place adhesive plaster.

Case No. 2. Mr. St. Clair, white, age 40. Referred Dr. Beaus of Horse Branch, Ky. This patient l a carbuncle involving the upper lip of ten days' ation. I feel I am safe in stating that his lip was size of a half orange of largest size, with many nings leading to the surface. Badly swollen face, nperature 102, pulse 100, when admitted to the pital. Suffering with very severe pain requiring free use of opium to relieve.

Realizing that the removal of this infected mass s not to be considered, he was given morphine to et, and the following day was taken to the office receive the lamp treatment. Five exposures were de at two-inch distance for two minutes, one ex- ure being directly under the nose and two on each e. These were repeated each day with one-minute posure at the same distance.

A relief from much of the pain followed the first atment and some betterment was noticed in the al condition. After the second treatment no opium s required to relieve pain and patient returned ne in just one week from his entering hospital. It l so rapidly healed that he expressed the belief that could shave at least half of the lip surface without trouble. This he was told not to do for fear of tation that might alight up a renewal of the pro- s after the bactericidal effects of the serum sur- nding the field had passed off. The residual effect erred to in the body of the paper.

Case No. 3. Mr. White, age 68, white, occupation rk. Referred by Dr. John Hays of Louisville, Ky. ffering with succession of boils on back of neck. is repetition of furuncles had existed for nearly e year. Three large ones were present when he ne to us for tratment.

The history of the case made us suspicious and he s referred to Dr. Pope for a complete examination. is revealed a diabetic of such percentage as to war- nt the term, "Saccharin Urine" Wassermann test gative. A few pus cells, urates, oxalates calcium ystals were also present.

The feces were negative. The differential blood unt showed a leucocyte total of 16,250, which was, we believed, due to the infection on the neck. Other- wise blood negative.

This patient was also a marked acidosis case. Dr. Pope continued his general treatment as to diet, etc., and the neck condition was given the lamp treatment with water-cooled lamp at three-inch distance for one minute. The local condition of such great severity soon cleared and while we had for several weeks, now and then, a small pimple with a minute opening filled with pus, we at no time had a repetition of large boils, and after some two months' treatments of three times a week the last infection ceased and patient has re- mained well up to present time. No local treatment was used in this case save aseptic dressings of gauze kept in place by adhesive plaster. Before each lamp treatment the furuncles were cleaned out with perox- ide and the lamp applied, the peroxide serving a dual purpose of cleansing and also aiding the action of the lamp.

Case No. 4. Mrs. Keaton, white, age 37, house- keeper. Referred by Dr. Moreman of Louisville, Ky, with the history that for five years she had been treated for gall stones, ulcer of the stomach, ulcer of duodenum, etc. Pain in pit of stomach, could not turn on either side, had to be very careful of eating, had lost several pounds in weight. This patient re- fused surgery in any form, after she had been X-rayed by Dr. Pope and told that she most likely had a duo- denal ulcer. She finally accepted non-surgical drain- age of the gall-bladder as a compromise, which was done. After having ten drainages she got better and was not seen for some time.

When she again presented at my office she asked me to look at a tumor that had in the previous few days formed in the region of the pylorus. This tumor was easily seen on looking at the abdomen as the patient was thin. It was tender on slight pressure and she was again having the usual trouble with her eating. Surgery was again refused and as a last re- sort I suggested the use of the actinic lamp, saying to her that I had not at that time used it on a similar case, and to reassure her I read her Dr. Plank's man- ual on the treatment of such cases as I believed hers to be.

She accepted this treatment and, not having at that time the air-cooled lamp, the water-cooled was used, giving her ten minutes' exposure at ten inches dis- tance. In all eighteen exposures were given and the results were little short of marvelous. After the sixth exposure the tumor became less tender and after the eleventh the mass had entirely disappeared. She be- gan to eat and to gain weight and is today entirely well so far as I am able to tell and she herself says she feels well and has no discomfort whatsoever.

My explanation to her as to what most likely hap- pened to produce the tumor was that she had had an ulcer that had either leaked or came so near it that adhesions had formed to protect the field. What hap- pened to the ulcer, if we were correct in our inter- pretation of the X-ray plates, is merely a conjecture. It most likely still remains, but is at least quiescent and the acute symptoms were apparently controlled by the use of the lamp.

This patient felt so well after the tumor disappeared that she did not return for further treatments. I spoke to Dr. Plank about this case and he suggested that I quit the lamp too soon. I returned to Louisville and called the patient over the phone and had her return for further raying. I offer this case for your consider- ation and for what my experience is worth to you.

Case No. 5. Miss Wolf, white, age 63, housekeeper Louisville, Ky. Presented herself at the office for treatment of a varicose ulcer of fourteen years' stand- ing that nearly covered the entire circumference of the left leg, and extending from the ankle to four inches above. This was surrounded by a mass of very large

varicose veins extending to the knee. This ulcer had applied at the time she came for treatment oxide of zinc salve to control burning. She stated that she had tried most all kinds of applications for relief without any real benefit.

The ulcer was cleansed of all salve and discharge and given two-minute treatment with light high-frequency spark through two layers of gauze. This was done on the next six visits to the office which was twice a week. This was done to stimulate the ulcer and was followed by the lamp at five-inch distance for two minutes. After the first six treatments the lamp only was used. This patient was physically and financially unable to pay her expenses to and from the office and did not take her treatment except very irregular and for several weeks did not get any at all and with this hindrance she has within eight months gotten a healing that is near complete. She will soon have a solid union of the limb as will be shown in the pictures that follow.

Case No. 6. Mr. Plengemier, white, age 65, cabinet maker by occupation. Referred by Dr. Fortney of Louisville, Ky. This old gentleman had also an ulcer of the left ankle of several inches dimension, that had been present for fourteen years. He too had had all the various applications that is usually tried in these cases with little or no benefit.

The water-cooled lamp was used at five-inch distance for one minute three times a week. This patient expressed relief from the burning and pain on standing after the first treatment. The line of demarkation grew less distinct, and the ulcer began filling in. Up to date he has had fifteen treatments and the results are very gratifying. The ulcer has not pained him any more, and is rapidly growing smaller, and the surrounding area is growing normal in appearance and shows no tendency to breaking down as these cases show in all instances where the tissues are so low in vitality. We feel certain this case will progress to a complete recovery.

Case No. 7. Mrs. Eikert, white, age 27, housekeeper by occupation. Came direct for treatment to the left jaw which presented a tumor size of half lemon due to infected roots of two teeth on that side.

She was sent to a dentist for the extraction of the teeth which allowed a free flow of pus from both cavities. The pus was of very foul odor and was Staphylloccus type.

The water-cooled lamp was used with the pharyngeal applicator direct to gums and on both inside and outside of gums. Time one minute to each contact. Six treatments were given in all when the gums were entirely healed.

Case No. 8. Miss Detlinger, white, age 30, saleswoman. Case direct, requesting examination of right breast, which was injured several months previous by bolt of silk slipping from the shelf and the end striking the breast just below the nipple in mid line. Some weeks later she noticed a soiling of her underwear and on noticing the breast found she had a tea colored discharge from the nipple. As there was no bloody discharge from the nipple on gentle pressure and seemingly no cause for alarm that would call for surgery, the lamp treatment was begun. Large quartz application was used twice a week with one-minute contact and later two minutes at ten inches with open lamp. In all thirty treatments have been given and no furher discharge is present.

Case No. 9. Mr. Evans, white, age 30, electrician by profession. Came to the office asking for treatment to several furuncles of the forearm of several days' duration. The furuncles were cleansed with alcohol to remove dirt and salve that he had placed on them. After this the water-cooled lamp was used at three inches distance for one minute. Five treatments were given in all and no further recurrence the trouble.

Case No. 10. Baby Mildred Franck; white, age months. Referred by Dr. H. E. Pelle, Louisville. Birthmark of port wine color involving left side face beginning at a point one and one-half inc above the angle of the mouth, and extending entir across the throat, and up to lower border of inferi Maxilla on the right, and several patches as large a half dollar that are separated from the main discol ation. At the suggestion of Dr. Pacini, who saw t case, we are using the water-cooled lamp for fifte seconds at seven-inch distance each day. Up to pr ent this child has had twelve treatments and quite marked change has taken place. White areas plentifully seen over the field where at the beginni of the treatment nothing but a port wine color w noticeable. We feel we are going to be able to something of real value for this little patient.

Great is the truth of Sheppard's eter aphorism: "We are only at the beginning the conscious utilization of the powers of lig as distinct from the unconscious enjoyment them." A new era of therapeutic accompli ment lies sealed in the secrets of biophot chemistry.

THE UNKNOWN BUT KNOWABL

T. HOWARD PLANK, M. D.,
Chicago.

WHEN the unknown is spoken of, the u knowable or supernatural is not mea neither is the spiritual thought rather does one hint at the possibilities alo the line of thought indicated by the unknow quantity. When one says he does not know, h implies the desire to know and a real desi to know leads to definite knowledge, and th unknown becomes the known; the sun wa only obscured by the fog.

Truths, many times, come to us by the sug gestion of unrelated facts. The ability to ap ply a known fact toward the development o an unknown fact constitutes all of the scienc of research. Just because a thing is unknow is no implication of its non-existence, neithe does the existence of a mechanism indicate it uses, and its use today may be but the fore runner of its many and varied uses tomorrow The radio waves are not new. They are as old as the world itself, although it is only of very recent date that we have begun to evaluate them and their many uses. How few, how very few, do we know today? Tomorrow alone will reveal the secret. Today we can hear exquisite music although removed thou sands of miles from the musician; today we can use these same waves to cut more accurately and evenly than with the sharpest knife. What of their use tomorrow?

For two decades we have used the high-frequency currents mostly for vacuum tube

President address, Western Electrotherapeutic Association, Kansas City, April 19, 1923.

atments. Slowly it is dawning upon the dical profession that these same currents ı be used as a very accurate destructive asure. A better balance of voltage and am- age and a higher frequency of oscillations l place in our hands a modality the uses of ich will not only test our imagination, but wildest flights of anticipation and dulity.

Vision-imagery must precede reality. If t imagery was accurately visualized the rking out of the details for practical appli- ion will need only perseverance and re- ted experiences to prove its worth. Genius the will to persevere where weaker minds t by the wayside; is the will to work the in highway while others explore the by- hs and cross-roads. When we stop associ- ng the unknown with the impossible we will ve made a long stride forward and if the jority will develop their latent initiative and k to discover the knowable we will soon be le to accomplish that which now seems both probable and impossible.

To accomplish the most along the above es, we must first open our minds to all sug- stions regardless of their source. Having re- ved the suggestion, we must act upon it ile it is still fresh, at least to the point of ing it permanently in a readily recallable m. Other suggestions in the same line can added to this from time to time, either from thin or without, until a working formula is olved and when we least realize it, the un- own will become the known and we have es- blished a scientific fact.

To understand the above, we have only to nsider the surgery of a few decades ago and sociate the then known facts and practices ith those of today. Actinic rays were first scovered by J. W. Ritter in 1801, yet it re- ained for Finsen, in 1895, to give us the first actical application of their therapeutic use hich, although limited as compared with their actical application today, pointed the way d the basic facts which he gave the world ill redound to his credit as long as the rays e used.

The slowness or rapidity with which prog- ss is made in any given line depends not only pon the number of investigators and initia- ve displayed by each, but by the co-operation iven investigators in related lines or activities he range of vision of a single human mind is curtailed and encompassed by its environ- ent that it accomplishes but little if unasso- iated. This is best illustrated by the prog- ess made in the various war activities during he late World War. When our government alled together men working along the same ine and grouped their various thoughts and ideas they became as one mind magnified as many times as there were individuals and more because their personal contact and immediate association became as one working unit. Thus, the amount accomplished in a few days would have required years of disassociated effort.

The recognized manufacturers are striving to outdo each other in perfecting their output and to produce apparatus that is most valuable in the greatest number of cases that the doctor has to care for. There is a sincere endeavor on their part to be exceedingly helpful toward furthering the cause of physiotherapy. If this be true, and it is, then it is up to the doctor to do his part toward finding out the therapeutic action of the various modalities and the class of cases best suited for each particular modality. Then it is up to him to find a second and a third best modality, for only in this way can he best serve his clientele.

It is within the manufacturer's and not the doctor's province to work out the physics of the various pieces of apparatus. The clinician should take care of the clinical field and develop the various lines of technique needed for proper application. We must not expect the manufacturer to give us the necessary clinical data for intelligent use of the apparatus he makes. In short, we must work together.

All our physiotherapy societies are calling for standardized apparatus and if we will work with the manufacturer, he will be glad to standadize his own products.

Medical societies are organized for the betterment of their members; for their collective inspiration as well as for the collaboration of recently acquired knowledge, both theoretical and actual.

If all had to depend upon printed books for new thoughts and ideas, progress would be slow indeed. Medical meetings, with their papers and discussions, mean active and immediate interchange of thoughts. Combine with these the actual visualization of how results are obtained together with the apparatus which produces these results and it is easy to see why so many medical men are investigating physiotherapy and physiotherapeutic societies.

The one thought I wish to have you take away with you and make a part of yourself during the coming years is: Do not wait for someone to tell you how to use or where to use a certain piece of apparatus. Take a step in advance of present knowledge. You may be criticized. What of it? It will only stimulate you to take other steps, furthering the cause for which you stand, the betterment of physical health, the lessening of physical distress.

1612 Heyworth building.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald
and Electro-Therapist
Incorporating the
Kansas City Medical Index-Lancet

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All communications should be addressed to the Managing Editor.

Vol. XLII JUNE, 1923 No. 6

The Editors' Forum

FOLKS, TUNE IN ON SAN FRANCISCO

See If You Can Get Abrams

E R A
$300 $ METERS

In a recent issue of one of the literary [1]magazines there appeared a writeup of Abrams. From it and others the following items are broadcasted chiefly for your information—or amusement:

Dr. Abrams' strange machine is called the sphygmobiometer; that one binding post of which may or may not be connected with anything at all throws some doubt upon his knowledge of mechanics. (Maybe it's a half-wireless radio thing.)

The mysterious machine for curing disease is called the oscilloclast. In 1919 there were only five doctors using it. In June, 1922, one doctor had fifteen machines. They are now leased at $250.00 each and $5.00 per monthly rental. and away behind with the orders. Three hundred dollars is the price of one month's course of instruction at San Francisco and all trains crowded.

Abrams says he can tell an expectant mother, from a drop of her blood, whether her child is to be a boy or girl; also tell the father if the child is legitimate, 'n' ev'rything.

No disease can exist unless one first has syphilis, he says. Cows have syphilis. One may get syphilis from vaccination. Abrams can connect up his machine with your vaccination scar and say if it is syphilis of the bovine type. (It probably is anyway.) However, Abrams believes in vaccination.

He can tell from your handwriting wha part of the world you are in; whether you ar alive or dead, and whether you have syphilis He says Longfellow had syphilis (in his hand writing).

Abrams was born, according to his variou assertions, in 1862, '63 or '64. (The connec tion is bad.) He received his M. D. degre from Heidelberg in 1882. (Rather young The connection was good.)

His medical journal is called Physio-Clinica Medicine. (Have a care, ere you subscribe; i is rather costive—$1.00 per copy, 50 pages o so.)

He says all matter consists of electrica charges in vibration, electrons. Living thing are made up of electrons. Electrons vibrate a a definite rate in every disease.

The patient whose vibrations you wish t study does not have to be present. From drop of blood the vibrations can be recorde on the abdomen of a healthy person, called th "subject." The blood is placed in a little bo connected by wires to some resistance coils— the biodynamometer. The energy of the vi bration from the blood sample is supposed t pass through these coils, then goes through some more wires to an electrode held against the forehead or some other part of the anatomy of the "subject." It is necessary for the "sub ject" to face West. (Abrams says he does no know why. I guess it's more better!) Also the "subject" stands on a plate which is grounded. (My E. R. A. aerial was grounded some time ago!) Now when the blood and the subject are connected up, Abrams sits in front of the "subject" and percusses the abdomen. If the blood "connects up," is cancer, say, the percussion elicits a dullness (over the "tropic of cancer") and there you are—see? You have to have confidence in Abrams percussion. (Ah, ha!—Abrams is the percusser.)

(Now don't get sarcasm!)

"The book is full of evidence that Abrams knows nothing whatever about electricity." (Oh, now DeKruif. I would not say that! He may not know as much as a Ph. D., but he knows several.) In one place he speaks "'Of the voltage being very high and varies from two to seventeen ohms.' Every high school boy knows that voltage is measured in volts and resistance in ohms." (And space by dollars.)

In Abrams' Journal for March, 1922, Abrams hands back to Sinclair some compliments such

[1]Hearst's Magazine article on Abrams, by Paul De Kruif, which is not complimentary—which is not strange, its author being DeKruif.

Pearson's Magazine also has published a very complimentary, hero-worshipping, writeup by Upton Sinclair, after spending several weeks at Abrams' place in San Francisco. This the Journal of the American Medical Association laughed at, stating that Sinclair was not competent to judge and that it would be easy to fool a non-medical mind.

"Sinclair Altruism," "the famous novel-" etc.

The one little bug under the chip that we ve not referred to yet is that Abrams has used to have his wonderful system passed on a medical body of investigators. "What re proper and fair and safe thing to do than ask the judgment, reached after deliberate sideration, of the claim in all its aspects of most authoritative organization of men of dicine in the country?—the A. M. A. rams has so far refused to have scientific ts made of his claims. From all that the M. A. can learn the presumption seems to not in his favor, but against him; in fact ongly against him."—V. Kellogg.

Dr. Abrams need fear nothing if he has dis-ered a scientific fact capable of standing up ler scientific testing, and that is what facts l do—from submitting his claim to scientific n to examine. But so far as I am aware, he s not care to do this, and from what scien-c men of medicine are able, without his as-tance, to learn of his assumption and thods, these do not create a presumption in favor, but, rather, against him."—V. Kel-g.

Now, before signing off, it might be recalled at we have the Cults, Mrs. Mary Baker over Patterson Eddy, and the Chiros and arst's International Magazine, 'n'ev'rything, don't worry if you didn't tune in on Abrams.

H. N. J.

THE JOPLIN MEETING

THE sixty-sixth annual meeting of the Missouri State Medical Association was pleasant and profitable. The scientific ogram was well received, being made up al-ost entirely of medical papers. The internist s felt that too much time has, in recent years, en devoted to surgical matters. This year e internist had his inning. Were it not for e house of delegates meeting at the same ur, the sessions would have been better at-nded. There was much criticism regarding e arrangements for the house of delegates, hich took up the greater part of the three ys' session. The present scheme prevents e delegate from deriving any profit from the pers, and on the other hand cuts down the dience for the fellow who prepares a paper. The clinical sessions were well arranged d generously attended. The entertainment flected much credit on the committee of ar-ngements of Jasper County Society. Men eard papers upon their favorite subjects, layed golf, saw good baseball, went rowing, ooting, motoring, attended hospitals and isited the mines. The only criticism of the eeting was the unwarranted rates demanded when checking out of the Connor. The committee cannot be taken to task for that, however. The ladies were well entertained. They enjoyed the hospitality of the society hugely.

Dr. G. W. Robinson, of Kansas City, was elected president. The invitation of Springfield was accepted for the 1924 meeting. The convention was marked for its sidelights, the greeting of old friends, fraternity dinners, new faces at their first state meeting, and the presentation of some really new thoughts in medicine.

One of the most enlightening events was the group of twenty-five men who met in the basement of St. Johns hospital, Wednesday morning, with Dr. P. T. Bohan, of Kansas City, to hear the most recent review on heart diagnosis. The speaker differed from the opinions of White of Boston and others, but in doing so satisfied the group with his reasoning. Surgical clinics were held upstairs during the morning.

The cabaret dinner Wednesday night was a big attraction, with its wonderful band, good eats, cigars and vaudeville. In the "blow hard" contest, Dr. H. W. Carle of St. Joseph won the honors. Among the old veterans, loved by all, were J. D. Griffith of Kansas City. Woodson of St. Joseph and Calloway of Calloway county. Taken altogether, the meeting was a happy one. What about Springfield next year?

Echoes

Dennie, Kansas City—Do not depend upon Wassermann reaction to diagnose syphilis. The time to diagnose it and cure it is before the secondary lesions appear.

G. W. Robinson, Kansas City—One-third of the cases of neuro-syphilis show no Wassermann. Clinical symptoms are more important than laboratory findings.

Caulk, St. Louis, uses the punch procedure very effectually in inopperable cases—from age or cardiac complications—of prostatic obstruction. The result is a clinical restoration.

Ravold, St. Joseph—From X-ray analysis presented a new cause of long bone pains, hemangioma with calcification. The calcified masses were removed surgically.

Skinner, Kansas City—Radiation of goitre only reduces the toxicity, does not cure. Eat more calcium, more bran, coarseness; too much food refinement.

Schissler, St. Louis—Judging from the fur deposited in our tea kettles, Missouri people

would get enough calcium if they would drink more water.

Baily, St. Louis—The most important propaganda regarding appendicitis is to train home folks to realize that abdominal pain demands rest in bed, starvation and early medical advice.

Tyree, Joplin—Pyorrhea and gastric hyperacidity are concomitant factors in physical degeneration.

Bohan, Kansas City—After eighteen or twenty years of life rheumatism does not affect the endocardium. Syphilis involves the aortic valve, never the metral. "Broken compensation" is obsolete; "loss of tonicity" is more comprehensive.

Blair, Kansas City—In 3,000 cases of goitre, only 40 occurred in men. In early adolescense some colloid goitres disappear without treatment. X-ray does not cure goitre.

BELL.

LECTURES ON PHYSIOTHERAPY

We are pleased to announce that Major C. M. Sampson, former chief of physiotherapy service, U. S. A., will give a series of ten lectures on physiotherapy at the Bellerive hotel, Kansas City, Mo., beginning Monday, June 4th, at 8:30 p. m. These lectures will be continued from Monday to Friday of each week until completed. Dr. Sampson needs no introduction to our readers, as his reputation is well known. The lectures will cover every phase of physiotherapy; will be strictly confined to ethical medical men or their assistants, properly vouched for. We hope a large number of our readers will take advantage of the opportunity of hearing Major Sampson's lectures.

Dr. W. Turner Wootton of Hot Springs, was elected president of the Arkansas State Medical Society at its forty-eighth annual convention, held at Majestic hotel, May 4, 1923.

WILL YOU EXHIBIT?

Manufacturers who desire to exhibit at Omaha and Kansas City this fall should make early reservation of space. The meeting in Omaha will be held September 18, 19, 20 and 21, the Interstate Society of Radiology and Physiotherapy meeting the first two days, and the Medical Society of the Missouri Valley the last two days. In Kansas City, the Medical Association of the Southwest, Southwestern Urological Association, and Kansas City's fall clinics, will occupy Convention Hall, October 9, 10 and 11. Many distinguished men of international reputation will be present. For blue prints and further information, address Dr. Charles Wood Fassett, Director of Exhibits, 115 East Thirty-first street, Kansas City, Mo. Reservations by wire will be given preference.

Clinic Week in Kansas City
Medical Ass'n of the Southwest
October 8 to 13, 1923

MEDICAL ASSOCIATION OF TH SOUTHWEST—A STATEMENT TO THE MEMBERSHIP

IN March, 1923, Dr. W. H. Bailey, Oklaho City, who was the acting secretary of t Medical Association of the Southwe turned over the records and accounts of t Association to Dr. E. H. Skinner, Kansas Ci the new secretary.

There was a debt of about $679.00 in unpai accounts. The principal accounts consisted o $286.00 to the Grove Brothers Printing Com pany of El Reno; $39.75 to the Sperry Printin Shop at Oklahoma City; and an account o $73.75 to the American Printers at El Reno These accounts total $399.50. The balance o the debt is for salary claimed by Dr. W. H Bailey.

In order to take care of this debt a motio was carried at the Hot Springs meeting whic permitted one-half of the membership dues t be used for old debts. Up to date 108 have sen in $2.00 checks for membership, two have sen in $3.00 checks and seven have sent in $5.0 checks, making a total of $257.00 in the mem bership account. This provided $128.50 to b applied upon the debts of the Association and Journal.

Dr. Clark sent out an appeal to old reliable members of the Association and succeeded i securing six donations of $10.00 each from ex presidents; one donation of $5.00 and forty three donations of $3.00, all of which makes a total of $214.00 to help clean up the debt.

Your secretary has paid the bill of $286.00 t the Groves Printing Company and settled the account of the Sperry Company for $30.75 making a total of $316.75 expended. The total amount of the debt account is $214,00 in donations plus the $128.50 which is one-half of the membership account, making a total of $342.50. We still require $50.00 in donations to cover up the total debt with the exception of the account with Dr. Bailey.

Following is the list of doctors who made up the fund of $214.00:

E. S. Lain, Oklahoma City	$ 15.00
C. B. Clapp, Moberly, Mo	10.00
M. L. Perry, Past Pres., Topeka, Kas.	10.00
St. Cloud Cooper, P. Pres., Fort Smith, Ark.	10.00
J. D. Griffith, Kansas City, Mo.	10.00
Joe Becton Greenville, Texas	10.00
A. L. Blesh, Oklahoma City, Okla.	10.00
W. T. Wootton, Hot Springs, Ark.	10.00
J. L. Moorehead, Neodesha, Kas.	3.00
William Englebach, St. Louis, Mo.	3.00
S. N. Mayberry, Enid, Okla.	3.00

J. G. Dorsay, Wichita, Kas.	3.00
N. H. Lindsey, Pauls Valley, Okla.	3.00
Martin Hagan, Wichita, Kas.	3.00
L. R. Phelan, Oklahoma City, Okla.	3.00
T. J. Hollingsworth, South Haven, Kas.	3.00
W. J. Ranenu, Fordland, Mo.	3.00
R. L. Kurtz, Nowata, Okla.	3.00
C. S. Kenney, Norton, Kas.	3.00
R. H. Hannah, Prague, Okla.	3.00
M. E. Stout, Oklahoma City, Okla.	3.00
M. F. Jarrett, Fort Scott, Kas.	3.00
W. J. Frick, Kansas City, Mo.	3.00
C. W Fassett, Kansas City, Mo.	3.00
M. L. Graves, Galveston, Texas	3.00
L. D. Johnson, Chanute, Kas.	3.00
L. Haynes Buxton, Oklahoma City, Okla.	3.00
J. Z. Mraz, Oklahoma City, Okla.	3.00
E. Armstrong, Greenleaf, Kas.	3.00
Alfred O'Donnell, Ellsworth, Kas.	3.00
Ellis Lamb, Clinton, Okla.	3.00
J. M. Bonham, Hobart, Okla.	3.00
A. Herff, San Antonio, Texas	3.00
L. N. Short, Hot Springs, Ark.	3.00
A. B. Leeds, Chickasha, Okla.	3.00
H. S. Major, Kansas City, Mo.	3.00
F. H. McGregor, Mangum, Okla.	3.00
Jas. A. Foltz, Fort Smith, Ark.	3.00
H. Moulton, Fort Smith, Ark.	3.00
Thor Jager, Wichita, Kas.	3.00
W. M. Buchanan, Watonga, Okla.	3.00
E. E. Liggett, Oswego, Kas.	3.00
H. G. Mudd, St. Louis, Mo.	3.00
R. M. Markham, Scammon, Kas.	3.00
W. W. Duke, Kansas City, Mo.	3.00
D. D. McHenry, Oklahoma City, Okla.	3.00
E. S. Ferguson, Oklahoma City, Okla.	3.00
G. Wilse Robinson, Kansas City, Mo.	3.00
S. Grover Burnett, Kansas City, Mo.	3.00
O. R. Edmonds, Tina, Mo.	3.00
O. H. McCandless, Kansas City, Mo.	3.00
Total.	$214.00

We would like to call upon the faithful for additional subscriptions to the amount of $50.00.

PLANS FOR THE FALL MEETING

In conjunction with the Kansas City Clinical Society, the Medical Association of the Southwest, and the Southwest Urological Association, will put on an intensive week of clinics, demonstrations, essays, scientific and commercial exhibits at the Convention hall in Kansas City during the week of October 8 to 13, inclusive. We have planned to have the clinics at the hospitals in Greater Kansas City upon Monday, Friday and Saturday of the week and the three intervening days with the distinguished guests at the Convention hall. We have already secured acceptances from the following eminent American physicians, each of whom will occupy one hour's time, thus permitting five periods upon each of the three days or a total of fifteen distinguished guests.

Our acceptances to the present time consist of the following:

Dr. John B. Deaver, of Philadelphia, who is now the John Ray Barton professor of Surgery at the University of Pennsylvania. Dr. Deaver is known to all of us besides the numerous papers which Dr. Deaver has presented throughout the years. He is the author of three volumes upon Surgical Anatomy, the classic upon Appendicitis, his Kidney Pathology and Treatment has gone to its fourth edition; with A. P. C. Ashhurst, published Surgery of the Upper Abdomen in 1909 and Enlargement of the Prostate in 1905. He has also published a volume upon Diseases of the Breast.

Dr. Joel E. Goldthwait, of Boston, is one of the most famous orthopedic surgeons in the world. He is an Ex-President of the American Orthopedic Association. He has published numerous monographs and is a frequent contributor upon Orthopedic Surgery. Dr. Goldthwait was colonel in the medical corps and chief consultant in Orthopedic Surgery in the A. E. F.

Dr. John Whitridge Williams, of Baltimore. He is Obstetrician-in-Chief of Johns Hopkins Hospital, and Dean of the Johns Hopkins Medical School. He was President of the American Gynecological Association in 1913-14 and is a corresponding member of the Obstetrical Society at Edinburgh, Leipzig and Munich. He was President of the American Association for the study and prevention of Infant Mortality in 1914-16. He is the author of one of the best text books upon Obstetrics that has ever been published and has written various momographs upon the subjects within his specialty.

Dr. Lewellys F. Barker, of Baltimore, is now Professor of Clinical Medicine at Johns Hopkins University and visiting physician to Johns Hopkins Hospital. His various activities as a leading American clinician are too well known and too numerous to permit of their citation. To indicate his various interests one may note his membership on the board of scientific directors of the Wistar Institute of Anatomy. He was President of the National Commission for Mental Hygiene from 1909-18. He has been President of the American Association of American Physicians and is a member of the American Neurological Association and the Association for Study of Internal Secretions; has contributed greatly to the advancement of these subjects. He is Vice-President of the American Society for the Control of Cancer. He is the author of The Nervous System and Its Constituent Neurones, 1899. He was translater of Werner Spalteholz's Hand Atlas of Human Anatomy in 1900; Laboratory Manual of Human Anatomy in 1904, and the Clinical Diagnosis of Internal Diseases in 1916.

Dr. J. Frank Schamberg, of Philadelphia, is one of the best known dermatologists. He is a dermatologist of international reputation. He is Professor of Dermatology and Syphilology at the Graduate School of Medicine, University of Pennsylvania, besides being the author of numerous articles. He has published a Compendium of Diseases of the Skin; a volume upon Acute Diseases of the Skin in association with Dr. Welch in 1905 and a volume upon Skin Diseases Erupted Fevers in 1911. It will always be remembered that Dr. Schamberg, in association with Dr. George H. Rosby and John A. Colmer in research early in the World War, produced the first elaboration in the United States of Salvarsan. It was previously known only in Germany. The profits arising from the sale in the United States have used as an endowment of the Dermatological Research Institute at Philadelphia.

Dr. John H. Cunningham, of Boston, is the Urologic surgeon who was President of the American Urological Association in 1920-21. He is the author of a text book upon Genito-Urinary Diseases. He is surgeon to the Boston City Hospital and Long Island Hospital and is consulting surgeon for the Frost Hospital, Chelsea; Melrose Hospital, Brockton, Mass., Hospital, Jordan Hospital, Plymoth, Mass.

Physicians desiring to keep in touch with the plans of this clinical week, should send their names to the executive secretary, Miss Howard, 400 Rialto building, Kansas City, Mo. Programs are now in preparation.

Poems the Doctor Should Know

RESIGNATION

Tomorrow holds no hope of happiness,
It is not ours to walk a sunlit way,
Yet shall we sing of sunshine and of joy,
For we have had Today!

Now must we go upon our separate paths;
The wings of night enfold us from afar,
Yet shall we keep our eyes awatch for light,
For Love has been our star!

We may often keep companionship with pain,
And never rest beside our home fire's gleams—
Yet we have known a lifetime of content
Within our House of Dreams!

—Nell Ruth Franey, in Kansas City Star.

THE CADUCEUS

The winged staff Apollo brought to earth
Of laurel made and winged with rapid powers,
Serpent entwined, as Wisdom wreathes and dowers
The minds which all the gods have marked with worth.
Good emblem of the heavenly counsel's grace,
Bestowed an honored favor on the few;
Who carries it does works the learned do
And Wisdom's paths all carefully out-trace.

Emblem of health and of the healing art,
More honored now than in the ages agone;
For health and healing do more now abound
And Mercy's work from earth will not depart.
Good health and healing will be carried on
Till sickness, pain are banished world around.

—Jas. A. DeMoss, M. D.
Thayer, Kas.

MAN'S STRENGTH

One went to his daily task each day
From a home where discord reigned—
A home that was only a home in name—
Where no trace of love remained.

Another went to the daily strife
And he carried deep in his soul
Courage and cheer from a woman's smile
To fight for a worthwhile goal.

One was broken and crushed and bent
Ere the weight of years fell deep,
While the other in courage grew each day
And found no path too steep.

—Katherine Edelman, in Kansas City, Star.

¶ A low systolic and normal diastolic pressure with a high pulse rate suggest tuberculosis or other infection. Check up with the thermometer, if temperature persists at 99 or above, tuberculosis with mixed infection is the best guess.

Gastric Aphorisms

J. M. BELL, M.D., F.A.C.S.

¶ To change intestinal flora—destroy putrefactive stasis, a broth of fermented milk, plus lactose gives excellent results.

¶ B. acid, in conjunction with lactose react well in constipation or putrefactive diarrheas.

¶ A broth of fermented milk, plus lactose, gave excellent results.

¶ Brilliant results in constipation and diarrhoeas were obtained by giving B. acid in conjunction with lactose.

¶ In such cases dry preparations of lactic acid bacteria accomplish nothing, even sour milk fortified with lactose does infinitely better.

¶ Biliary obstruction is not complete if gastric contents are bile stained, and the stool gives a positive bydrobilirubin.

¶ Very rarely do we encounter stone formation occurring primarily in the hepatic duct or the liver itself. Where bile flow is obstructed proximally to the cystic duct, the gall bladder and the common bile duct are frequently very small or even atrophic.

¶ The sigmoid is a favorite seat of diverticula. They are usually situated close together, form pockets in which fecal matter becomes impacted, and which, when retained, causes destruction of the mucus lining.

¶ Inasmuch as diverticula cannot discharge freely into the lumen of the gut, inflammatory products are retained and stimulate an infective reaction in the deeper layers of the bowel wall.

¶ The coalescence of numerous diverticula with the associated inflammatory thickening, at times gives rise to a surprisingly large tumor mass.

¶ Actual infection of food with bacteria of the paratyphoid enteritides type is more common than by ptomaines generated in food before it is taken. The infection is carried by meat or milk from animals suffering with enteritis.

¶ The attacks suggest typhoid—are acute—yet may linger for weeks or months.

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

STUFFED CAPSULES

¶ Electricity and love rule the world.

✣ ✣ ✣

¶ The new metal mesh electrode fits all contours of surface and when held in place with a bandage, electrical contact is assured.

✣ ✣ ✣

¶ Physiotherapeutic measures which conducted us safely through the most critical stage of the late war should be remembered with approbation.

✣ ✣ ✣

¶ "Let not the time come when we are compelled to defend ourselves against the ambition and jealousy of each other."

✣ ✣ ✣

¶ Not a system of medicine existing today has gained a foothold, but by virtue of being in some way suited to a purpose.

✣ ✣ ✣

¶ We are told that every disease has a little movement all of its own.

✣ ✣ ✣

¶ Regardless of the cry, "Off with the old and on with the new," somehow or other quinine is of service in pneumonia.

✣ ✣ ✣

¶ Physio is but one member of the great therapeutic family.

✣ ✣ ✣

¶ Electro-cardiotherapy is on the job and we hope for the fulfillment of her promises.

✣ ✣ ✣

¶ The congestive stage of pneumonia is amenable to diathermy. The passive hyperemia is displaced by active hyperemia and the formation of inflammatory exudates prevented; the disease is promptly robbed of its succeeding stages, the patient recovers, leaving the attending physician very doubtful of his diagnosis.

✣ ✣ ✣

¶ X-ray keratoses are best treated by desiccation; X-ray ulceration by actinic rays. Diathermy materially assists in either case.

✣ ✣ ✣

¶ In the selection of a High Frequency Machine remember that capacity and fineness of control spell efficiency

✣ ✣ ✣

¶ An autocondensation dose of 300-600 milliamperes should never be exceeded in cardiovascular disease.

✣ ✣ ✣

¶ In hypertension a salt free is better than a protein free diet.

✣ ✣ ✣

¶ A limited amount of animal protein is advisable in most cases of hypertension.

✣ ✣ ✣

¶ A high systolic pressure can always be reduced by autocondensation, but it cannot always be maintained.

Society Scintillations

CALIFORNIA CALLING

California, where Spring eternal dwells throughou
thy land.
Yours is the name I've idly traced upon thy golde
sand,
A name that springs from fervid lips and makes th
hot blood start,
A name that's graven hard and deep within grea
Nature's heart.
E'er higher, clearer, stronger yet than boom of sav
age sea.
The voice of Springtime calling, calling me.

—Albert Leon Van Houtte.



CIVIC AUDITORIUM AND PLAZA, GENERA
HEADQUARTERS, EXHIBIT, AND SECTIO
MEETINGS, A. M. A., SAN FRANCISCO.

OLD COLONY CLUBS

Physicians who are members of "Old Colony" wi
find clubs located in the Palace Hotel, San Francisc
and in Hotel Lankershim, Los Angeles, where the
will be cordially welcomed, mail taken care of, ar
all other details of comfort attended to while in Cal
fornia.

MEETINGS IN CALIFORNIA

National Tuberculosis Association, Santa Barba
June 20th to 23rd.

American Proctologic Society, Los Angeles, Ju
22nd and 23rd. The profession cordially invited
both meetings.

Cafe Marquard, Geary and Mason streets, San Fra
cisco, is the rendezvous for those who love good fo
and wholesome entertainment. There you will me
your friends while attending the A. M. A.

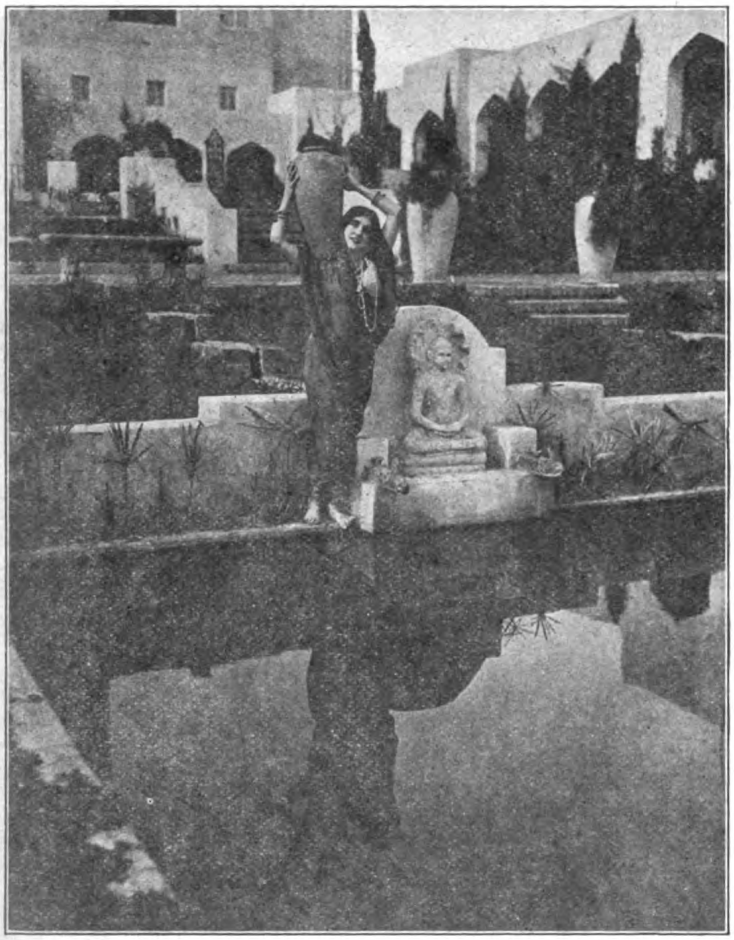
SPECIAL TRAIN TO THE A. M. A. IN SAN FRANCISCO

The Jackson County Medical Society is arranging for a special Pullman to be attached to the Southern Medical Society's special train for the A. M. A. meeting in San Francisco. This train will leave Kansas City, Tuesday, June 19th, 5:45 p. m. via the Missouri Pacific, spending one day in Colorado and one day in Salt Lake City, arriving at San Francisco Sunday evening, 5:45 p. m. Medical men in the territory around Kansas City wishing reservations on this car should address the Secretary, Jackson County Medical Society, care of the General Hospital.

GALIFORNIA, the perennial land of sunshine and flowers, is extending a cordial welcome to the physicians of America. The date of the meeting of the American Medical Association, June 25 to 29, will find California and San Francisco rayed in all the beauties of nature for which the ate is famous. Dr. Ray Lyman Wilbur of Stan-rd University will preside at the general session. l the section meetings will be held in the Civic ditorium, which will also house the exhibits—all der one roof.

The American M

SAN FRANCISCO, CALIFORNI



VISTA THROUGH THE GARDEN OF BEAUTIFUL HOTEL SAMARKAND, SANTA BARBARA

THE SOUTHERN SPECIAL

The Southern Medical Association will run a special train, from St uis, 9 a. m., Tuesday, June 19th, and leaving Kansas City, via the Mis-ri Pacific, at 5:20, the same afternoon. This train will run via Colorado ings, Glenwood Springs, Salt Lake City, with short stop-overs, and ar-ng in San Francisco Sunday afternoon, June 24th. A very cordial in-tion has been extended to all members of the Missouri Valley, South-st, Missouri and Kansas State, Jackson County, Buchanan County, and er societies along the route of the special train. The round trip fare n Kansas City will be $72.00, with the privilege of returning over sev-l different routes. Those desiring to return over the northern route l pay $18.00 additional. We learn that the local medical societies in orado Springs and Salt Lake City are preparing entertainment for se who are members of the Southern party. Full information may be ained from Mr. L. R. Welsh, Division Passenger Agent, Missouri Pa-c Railroad, Kansas City, Mo.

SANTA BARBA

Santa Barbara is on the coast, nor nel islands. One of those islands, Sa Spanish explorer, who died there in 1 Mission Santa Barbara, founded in 178

This is a well known winter reso surroundings. The hotels of Santa Bar the "Samarkand" and the "Arlington." you like California, you will love Santa



San Francisco's Ocean Beach Esplanade, the year

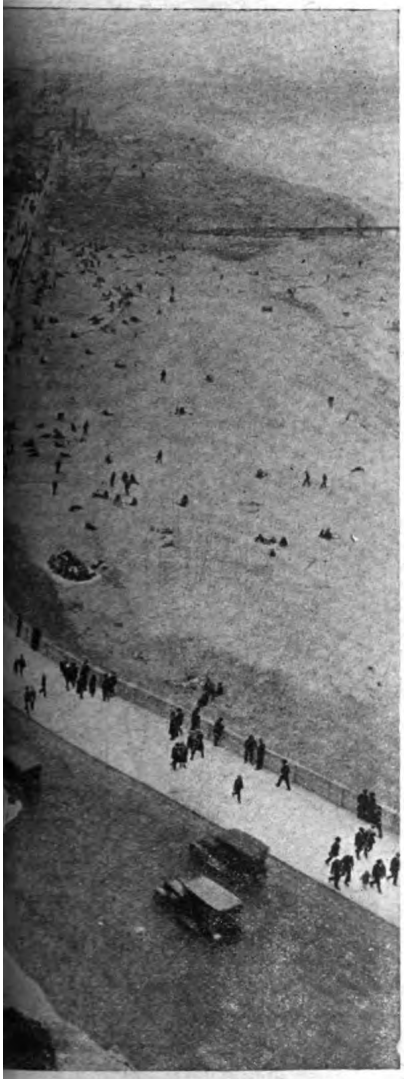
dical Association

:::: *JUNE 25 to 29, 1923*

HE BEAUTIFUL

of Los Angeles, overlooking the chan-
el, is the burial place of Cabrillo, the
he present city dates from 1851. Old
remains.

ed for a mild climate and picturesque
rovide luxurious entertainment, notably
al summer rates are now in effect. "If
ara."



h entices lovers of the great outdoors
nd.

Physicians and their wives should take their overcoats and evening wraps, for while the days will be pleasant the evenings will be cool. Those who expect to travel about in the state should wear ordinary weight underwear, and carry overcoats and wraps to meet the variations of climate.

SIDE TRIPS

Arrangements are being made for side trips to Honolulu, Alaska, Japan, China, and the Philippines also shorter trips to Seattle, Yellow Stone, Glacier and Rainier National Parks, Santa Barbara, Atascadero and Los Angeles.

CATALINA ISLAND

While visiting Los Angeles, no one should fail to visit Catalina Island. There is no trip in the world that affords as much diversion or has a greater opportunity for enjoyment, as a trip to the island in the celebrated glass-bottom boats over the submarine gardens. On Catalina Island, which is the beauty spot of California, will be seen the palatial home of Mr. Wm. Wrigley, Jr., also the beautiful hotel St. Catharine, "a scenic gem in a sapphire sea." Catalina Island is reached by the steel steamship, "Avalon." The round trip rate being $3.10 from Los Angeles.

LOS ANGELES

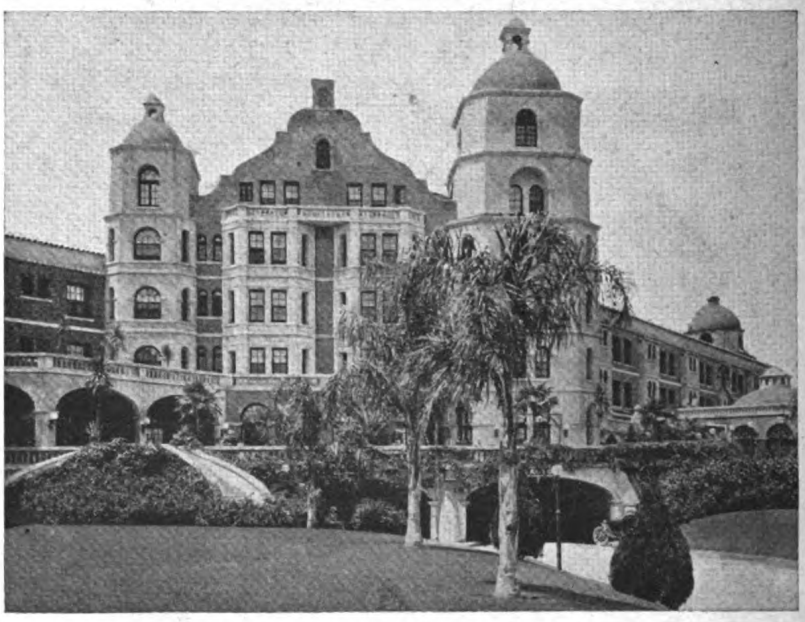
Physicians and their families will enjoy a stop-over in Los Angeles at the beautiful "Ambassador" Hotel, located in its own 27-acre park, with all amusements and entertainment. If you prefer the down town district, The Alexandria or the Lankershim provides excellent service and reasonable rates.

RIVERSIDE

No visit to California would be complete without a stop-over at the historical "Mission Inn" of Riverside. This hotel has a well earned reputation for beauty and comfort. The "Mission Inn" may be reached by auto or rail from Los Angeles. The Golden State Auto Tour Company maintains a splendid service to and from Riverside. For service call the Rosslyn Hotel.

HEADQUARTERS AT SAN FRANCISCO

The secretary's headquarters in San Francisco (after June 19th) will be "Hotel Somerton," 440 Geary Street, just off Union Square. If you desire a reservation on special train, or if you are interested in a side trip to the "home colony," Atascadero, address Charles Wood Fassett, M. D., secretary, 115 East Thirty-first Street, Kansas City, Mo.



THE "ARLINGTON," SANTA BARBARA

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

REGIONAL ANESTHESIA—ITS TECHNIC AND CLINICAL APPLICATION

By Gaston Labat, M. D. Lecturer on Regional Anesthesia at the New York University; Laureate of the Faculty of Sciences, University of Montpelier; Laureate of the Faculty of Medicine, University of Paris; formerly Special Lecturer on Regional Anesthesia; The Mayo Foundation, University of Minnesota. With a foreword by William J. Mayo, M. D. Octavo of 496 pages with 315 original illustrations. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, $7.00 net.

This book is a well illustrated, ably written exposition on all forms of injection anesthesia.

Historic facts and theoretic discussions are avoided and the pages filled with definite information, which will save time and takes the place of much experimental work on the cadava that would otherwise be necessary.

As a thorough knowledge of descriptive and topographic anatomy, especially as applied to nerve distribution, is important to assure success in this form of anesthesia, most of the cuts are devoted to demonstration of nerve relation to bony structure and other definite land marks.

The chapter on blocking of the cranial nerves is especially to be commended for its cleanness and detail, which permits of a quick and accurate injection of these nerves at the most accessable point. This chapter should be of interest to the dentist as well as to the physician.

Not only is nerve distribution fully discussed, but each operation is taken up separately and exact points of injection demonstrated, thereby saving much guesswork and poor results to those inexperienced in regional anesthesia.

Attention to detail is the keynote of successful administration, so the author has gone into minute detail as to dosage, variation in percentage of solution in different localities, preparation of patient and field of operation, technique, type of instrument, etc.

While it is not claimed that regional anesthesia can be applied successfully in every operation, yet in many it is the anesthesia of choice and its field of usefulness is enlarged, in proportion to the skill and experience of the operator and anesthetist.

It is a book well worth while to those interested in surgery ond anesthesia.

M. H. CLARK, M. D.

An Outline of the Pirquet System of Nutrition.—By Dr. Clemens Pirquet, professor of pediatrics at the University of Vienna, Austria, 16 mo. of 96 pages. Philadelphia and London: W. B. Saunders Company, 1922. Cloth, $2 net. W. B. Saunders Company, Philadelphia, London.

A very estimable little book with clear deductions and many clinical suggestions well worth following. The outline is the result of teaching together with hospital observations.

The serious drawback to the work to the American physician is the adoption of a new standard of estimation of food values and a new nomenclature founded upon the new standard. Pirquet has observed the



nship existing between the heart, pulse, and weight; viz., the sitting height (height of the), which stands in close relationship to the cube of the body weight. He coins a word for the ion pelidisi which is carefully worked out. His instead of calories, is nems=nutrition—equiva- milk. Two large calories equal 3 nems, 1 calory equals 1.5 nems. From this standard he ates the dekanem, hektonem, kilonem, etc.

ce the deductions and conclusions are similar r prevailing method, there is nothing gained by ing in new terms, and since our American prac- ers have accustomed themselves to the applica- of the calory to nutritional problems it would be tunate to attempt to change the standard of cal- on or the nomenclature.

LECTURES ON DIETETICS

Max Einhorn, M. D., emeritus professor of med- at the New York Post Graduate Medical School Hospital; visiting physician to the Lenox Hill ital, New York. 12 mo of 244 pages. Philadel- and London, W. B. Saunders Company, 1922. . $2.25 net.

is work of Einhorn does not pretend to be a com- textbook in dietetics. It is a series of lectures ered, and later, by request, published. The first on consumed, this second edition is larger and been rewritten.

ie doctor's aspiration is to spread the knowledge etetics. The book is written in that pleasing vein Einhorn's conversation and lectures, fundamental profound; easily grasped and keenly appreciated; e up of such beautiful word pictures as to be in- ly impressed and long remembered. The lec- s herein presented link dietetics with clinical med- more closely than any work before the profes- today. Those who have disregarded dietetics, r reading this little volume, will become converts. Those who have followed the subject will get clearer visions and be better enabled to apply the subject in medicinal practice. It is a real missionary work in the field, written in a most pleasing, clear convincing style. Well bound and just the size to fit into the overcoat pocket. J. M. B.

NEW HAY FEVER BOOKLET

A very attractive little booklet on diagnosis and treatment of hay fever has just come to our notice, and we were particularly impressed by the "meaty" information contained within its 12 pages. Among the subjects covered are the grouping of pollens according to Scheppegrell, description of pollen extracts, some paragraphs on diagnosis and desensitizing treatment, etc. Readers of this Journal may procure a copy of this very interesting hay fever booklet, free, upon request to H. K. Mulford Company, Philadelphia.

TO THE MEMBERS OF THE MEDICAL ASSOCIATION OF THE SOUTHWEST

On account of the suspension of The Southwest Journal of Medicine and Surgery, a number of the papers read at the Hot Springs meeting have not been published. The Medical Herald has secured the privilege of publishing these papers, including those read before the section on Eye, Ear, Nose and Throat, and they will all appear in early issues of this magazine. The Herald will also publish all the news concerning the next meeting of the Medical Association of the Southwest, which is to be held in Kansas City in connection with the Fall Clinics, October 15th to 21st.

NOTE—The Medical Herald's Kansas City office will supply any book reviewed in this department at publisher's price, prepaid. We can also supply any book by any publisher in the world. If an order for two books be sent at any one time, the purchaser will be entitled to a six months' subscription to the Herald.

When A Tonic Is Needed

and the functions of the body are depressed and deficient, what restorative or reconstructive do you know of that will do more for the weak and debilitated than

Gray's Glycerine Tonic Comp.?

If you are not familiar with the therapeutic efficiency of Gray's Glycerine Tonic Comp., a trial in some case will show you the advantages of using a remedy that for over a third of a century has never failed in its responsibility and good faith to those it has served.

What tonic when given to patients convalescent from *influenza, bronchitis, pneumonia, diphtheria, scarlet fever* or *measles,* or from *surgical operations,* will so promptly stimulate the appetite, improve the digestion, increase the assimilation of food and thus restore vitality and strength, as Gray's Glycerine Tonic Comp.? The answer to the foregoing is found in the thousands of medical men who use it regularly whenever a tonic is indicated. Their experience in countless cases has conclusively shown them that it has no superior in its field of use.

The Purdue Frederick Co.

185 Christopher Street, New York

Medical Melange

CLAY COUNTY MEDICAL SOCIETY

The Clay County Medical Society met at the Major hotel in Liberty Monday, April 30th, the meeting being inaugurated by an elaborate 6 o'clock dinner, the Liberty members entertaining. Over thirty members, wives and visitors were at table. A more enthusiastic and cordial meeting has never been participated in by this society.

Dr. P. T. Bohan of Kansas City delivered the address of the evening. Subject, "The Heart." The doctor talkd more than an hour and based his sound conclusions upon a series of over 300 tabulated cases within his own practice. This lecture was pronounced by those present to be one of the ablest and most instructive in our history.

Dr. L. P. Engel of Kansas City read a paper on "Infections of the Upper Lip," reporting therewith numerous cases, which made the text most interesting. After discussion, both essayists were given a unanimous vote of thanks by the society.

A motion was made and carried that our next meeting be held at Kearney, on the last Monday in June, and that members and wives would take well filled lunch baskets and picnic at high noon in one of the beautiful groves adjacent to that historic little city. Dr. H. N. Jennett will please take notice. Our secretary-editors of the state may listen in also.

Our secretary, Dr. Gaines, not being present, the undersigned was elected pro tem. Adjourned.

S. R. McCRACKEN, M. D.

IS PHARMACY FALLING INTO UNTRAINED AND UNREGISTERED HANDS?

The great number of old drug stores that are passing to men untrained and unregistered as pharmacists, and the great number of new drug stores that are being opened up by this same class of men, again raises the question, what is the matter with pharmacy as a profession? Are the trained and professional men selling out and leaving pharmacy because their efforts are not appreciated, and because of non-support from physicians who scorn the neighborhood druggist and insist on patients paying high prices for medicine at central locations? And what results from these conditions? Recently I am told, a prescription was refilled at a drug store newly owned by a man untrained and unregistered in this craft, calling for three drachms of a poisonous drug in a six-ounce mixture; fortunately the color of the liquid was so dark that the patient hesitated about taking it. Upon inquiry by the physician who wrote the prescription it developed that three ounces of the poison had been used instead of three drachms. Are the physicians of Kansas City awake to the possibilities latent in drug stores of this kind where often it is said, an old certificate of registry hangs that belongs to a man formerly a druggist but now engaged in other lines, while his old certificate earns him added pin money? Reflection on this situation cannot fail to give new direction to the channels where perhaps some of your prescriptions may be filled.—Albert N. Doerschuk.

LOWERING THE COST OF PHARMACEUTICALS

The standardizing of manufacturing processes, the elimination of experimental cost, and increased efficiency in marketing, all have contributed in reducing prices and placing American industry in the position it now occupies in the industrial world. Practically

The Management of an Infant's Diet

Constipation

Protein indigestion or the failure to take care of the casein of cow's milk may result in delayed bowel movements.

When constipation in infancy is due to casein curds it is readily overcome by employing some means of preventing the firm coagulation of the casein.

Mellin's Food

acts upon the casein of milk in such a manner that the coagulated casein is presented in a most favorable condition for the action of the digestive fluids; therefore, Mellin's Food is especially indicated in constipation due to faulty protein digestion, and results will at once be apparent if Mellin's Food is used in sufficient amount to thoroughly attenuate the milk casein.

Mellin's Food Company, Boston, Mass.

all fields of industry have benefited by production methods. However, there is one field that has until very recently been sadly neglected. I refer to the pharmaceutical field in general and particularly to the ampoule field. The writer has interviewed several nationally known pharmaceutical houses in an effort to learn just why there is such a wide gap between the raw material cost and the consumer cost. The result of these investigations were frankly discouraging, all claiming that extensive tests, research work, expensive machinery and high labor cost were responsible for this well known gap. While it is perfectly reasonable to assume that the development of certain forms of medication has entailed enormous expense in conducting clinical, biological and toxicity tests necessary to determine their therapeutic value. However, once the value of a product has been proven and used extensivly, should not a manufacturer be able to reduce a selling cost and still realize a reasonable profit on his investment. The most recent efforts to establish this industry on a par with other great American industries was made by one of the largest pharmaceutical houses, manufacturing Salvarsan and Neo Salvarsan, in this country, when they reduced their prices fifty per cent without lowering the quality standard in the least. It is the writer's belief that his reducion was made possible only by increased production and increased efficiency in marketing. There have been other more or less successful attempts made to establish the industry on a production basis. Among the most noted of these is a large intravenous house in East St. Louis, Ill., which has reduced its prices as high as eighty per cent on their products, at no sacrifice whatever to quality. The policies of the above concern have met with very encouraging responses and the time cannot be far distant when the pharmaceutical industry will take its place with other great American industries in the matter of production with the resultant, lowering of prices. However, this cannot be accomplished as long as the pharmaceutical buyer persists in the belief that high prices are necessary to maintain high quality standards, when as a matter of fact, it is the volume of business acquired by increased production that makes low prices possible, when one considers that the raw material cost affects the selling price only in a small degree.

DEAR DOCTOR

Isn't it a fact that frequently you have serious difficulty in finding just what you want in the way of a laxative or cathartic for your pregnant women? If you have in your care now one of these cases where you are looking for a laxative your patient will retain, and one that will not in itself, nauseate her, one that will not provoke griping, straining, nor tenesmus —evidences of irritation; one that does not congest the lower bowel and pelvic organs; and one that will not leave her constipated after even active action, let us send you a sufficient quantity of Abilena Water to demonstrate its special value in this class of cases. Abilena fortunately furnishes just the salines most indicated for these cases. It has just enough sodium chloride to disguise the bitter taste, just enough bi-carbonate of soda and calcium sulphate for ant-acid effect, and it has, what no other water on the market contains, the bi-carbonate of calcium so necessary to the pregnant woman as a bone builder and for the protection of her teeth. The dose is small, only one to four ounces. A few swallows of table water washes the slightly saline taste from the mouth and also gives the necessary dilution. It can be taken once, or if desirable, several times a day, during the entire period of pregnancy without any untoward effect. No blood changes whatever are induced. Do you want a sample?—The Abilena Sales Company.

AN examination of some of Sherman's Vaccine* prepared **Ten Years** ago showed no apparent deterioration nor autolysis.

We welcome microscopic comparisons of our vaccines, for—freedom from deterioration and autolytic products, accuracy of count and morphological characteristics.

Bacteriological Laboratories of G. H. SHERMAN, M. D., Detroit

*This vaccine was in druggist's stock in the regular way and recalled as outdated.

A SAFE SORORIFIC FOR NEURASTHENIC PATIENTS

The danger of prescribing the opiates and ordinary sedatives for neurasthenic and hysteric patients, especially women, by reason of the possibility of habit formation, most physicians avoid them entirely, and often times the patient continues to suffer from loss of sleep. In this class of patients when the need for a sedative or sororific agent arises, Pasadyne (Daniel) will be found to serve in most satisfactory manner. While possessing potent sedative and sororific qualities, Pasadyne (Daniel) is free from the disadvantages attaching to other agents of this class. Thus, no depression follows its use, and the patient is not subjected to the danger of habit formation. A sample bottle may be had by addressing the laboratory of John B. Daniel, Inc., Atlanta, Ga.

DIGITALIS (UPSHER SMITH)

Mr. Upsher Smith, a chemist of very high standing, did the medical profession a great service in standardizing Minnesota digitalis and a further and equally important service when he began to raise it, thus always insuring a sufficient quantity of the Minnesota grown drug, which is known to be the best in the world.

Mr. Smith's digitalis farm at Minnetonka is producing this year a splendid crop of the leaf, and its preparation by him is a perfect guarantee that every package of it, whether in tincture or capsule form, sent out will be as nearly perfect as technical skill and constant personal supervision can make it.

Digitalis, as every physician knows, is a remedy of unequaled value, but it is not a safe remedy to use unless its quality is known and guaranteed in its standardization.

Further information can be had from Mr. Upsher Smith, 322 South Fourth street, Minneapolis.

ECZEMA

A notoriously stubborn malady is this, highly resistant to orthodox treatment, trying the patience both of patient and physician. Not always but in many cases. So unsatisfactory is the progress in such cases, under the usual remedies, that the physician is really glad when the patient, at his suggestion, decides to try what hydrotherapy will do and takes the train to one of the popular mineral springs. But certainly one prefers to cure his patient, if the thing is possible. Many stubborn cases are said to respond to Zematol, an ointment made by the Chicago Pharmacal Company. It is worth trying on the strength of the favorable reports circulating.

¶ When the diastolic pressure approaches zero, it suggests aortic regurgitation.

Golden Opportunities

BARGAINS FOR YOU

X-Ray and Therapeutic Cabinet—Thomplasto Model E. Cheap. Send for description. C. F. Mills, 543 Ridge Bldg., Kansas City, Mo.

Electric Thermofore—Complete with two thermometers and instruments. Cost $135.00. First $35.00 cash takes it. C. F. Mills, 540 Ridge Bldg., Kansas City, Mo.

High-Frequency Cabinet—With tankless compressed air, vibration and heated air. Cost $350.00. Will sell for $75.00 cash. Oak finish, in fine shape. C. F. Mills, 540 Ridge Bldg., Kansas City, Mo.

Aloes—Lighting cabinet complete, like new, $50.00 cash. C. F. Mills, 540 Ridge Bldg., Kansas City, Mo.

X-Ray Equipment—A Complete Victor X-Ray Equipment; used only a few months; for sale at a bargain. Guaranteed first class in every respect. Address C. B. Fitz, M.D., 110 Curtin Ave., Pittsburgh, Pa.

For Sale—Alpine Sun Lamp, floor stand type for 110 volts D. C. In fine condition. Address Dr. C. R. PerDue. 411 State Life Bldg., Indianapolis, Ind.

Actinic Ray Therapy (new edition)—By T. Howard Plank, M. D., Chicago. A practical treatise for physicians interested in physical therapeutics; illustrated, 160 pages, $5.00, postpaid. Supplied by the Medical Herald and Electro-Therapist, Kansas City, Mo.

Grover's Handbook of Electro-Therapeutics—By Dr. Burton B. Grover. The last word in Physiotherapy; 450 pages, 111 illustrations; price $4.00, postpaid. Supplied by the Medical Herald and Electro-Therapist, Kansas City, Mo.

High Frequency Practice—By Dr. Burton Baker Grover. Second Edition. The most practical book of the day; contains everything you want to know about high frequency and how to apply it. About 400 pages and nearly 100 illustrations; price $4.00, postpaid. The Electron Press, 115 East Thirty-first Street, Kansas City, Mo.

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FORTY-TWO YEARS IN THE MISSOURI VALLEY

The Medical Herald

and Electro-Therapist

Incorporating

The Medical Fortnightly & Laboratory News
St. Louis Clinique, General Practitioner
and
The Kansas City Medical Index-Lancet



A Normal Colon



A Spastic Colon. Darkest Portion Shows Dilatation. Arrows Indicate Spastic Condition

Nujol REG. U.S. PAT. OFF.

Especially recommended for dilatation or spasticity

Guaranteed by Nujol Laboratories, Standard Oil Co. (N. J.), 7 Hanover Sq., N. Y.

TABLE OF CONTENTS, ADV. PAGE 7

MEDICINE—SURGERY—PHYSIOTHERAPY—X-RAY

Published Monthly at 115 East Thirty-first Street, Kansas City, Mo.

An Army Delivered from Exile and Suffering

Thousands of hay fever victims, who formerly had to banish themselves in distant parts or suffer at home, are now finding relief through systematic treatment

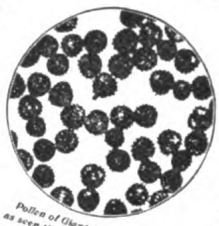
copy of "Ad." in Hygeia

More than one million persons in the United States are affected with hay fever, a disease described as due to an over-sensitiveness to pollens.

Pollens are the dust-like particles which Nature provides for fertilizing trees, flowers, weeds, grasses, etc. They are carried from plant to plant by the wind, insects and other agencies

The wind-borne pollens are the most serious offenders and, when inhaled by an over-sensitive individual, they cause the mucous membranes of the nasal passages to become congested, the eyes to water and burn, incessant sneezing and a combination of symptoms which make the victim miserable.

If you are a hay fever sufferer, if you are over-sensitive to pollens, you may have yourself ***de-sensitized*** by proper treatment, save time and money, avoid the inconvenience of enforced travel, and attend to your regular business or duties without suffering the usual distress of the hay fever stay-at-home.



Pollen of Giant Ragweed as seen through microscope

Consult your physician. See him early—at least 6 to 8 weeks before your usual date of attack, since only by early treatment can the best results be obtained. He can make a few simple tests to ascertain the offending pollen in your case, then institute a course of treatment with the corresponding pollen extract to increase your resistance.

The results from this form of treatment show about 25% of the cases completely relieved, 50% made comfortable and the remaining 25% not materially helped. You have at least three chances out of four of being benefited.

MULFORD POLLEN EXTRACTS are used very extensively for this treatment because of their recognized purity and uniformity, and also because they are supplied in the Mulford Hypo-Unit—a collapsible-tube container which is used but once, then thrown away, thus providing an individual syringe for every patient—a factor of refinement, safety and convenience that is appreciated by patient and physician alike.

Consult your Physician

H. K. MULFORD COMPANY, Philadelphia, U. S. A.

Mulford

THE PIONEER BIOLOGICAL LABORATORIES

Mulford Pollen Extracts

are supplied as follows:

For Diagnosis

Cutaneous Tests
Intradermal Tests

For Desensitizing Treatment

In 15-dose Hypo-Unit package
In syringe and bulk vial packages

Free Cutaneous Tests for Hay Fever and Literature upon request

Entered at the Kansas City postoffice as second class matter

Continuing the Medical Fortnightly and Laboratory News

The Medical Herald
and Electro-Therapist
Incorporating
The Kansas City Medical Index-Lancet
An Independent Monthly Magazine

Vol. XLII JULY, 1923 No. 7

Original Contributions
(EXCLUSIVELY FOR THE MEDICAL HERALD)

SPECIFIC HYPERSENSITIVENESS AS A COMMON CAUSE OF ILLNESS

By W. W. DUKE, M. D.,
Kansas City, Mo.

A RATHER large proportion of individuals inherit a constitution whereby it is possible for them to become sensitive to one or more alien substances. After becoming sensitive they react in characteristic ways whenever they come into intimate contact with the substance to which they are sensitive. Naturally acquired sensitiveness in humans is usually far more marked in degree than that found in animals which have been sensitized artificially by treatment with alien proteins. With animals which have been sensitized to horse serum, for example, it takes an appreciable amount of horse serum given subcutaneously or intravenously to cause death or even a severe reaction. When a human becomes sensitive, however, to some alien substance, such as horse dander, his sensitiveness may be so marked that he becomes violently ill if exposed to the infinitesimal quantity of dander in the air around horses. Individuals sensitive to pollen have hay fever and asthma after contact with the minute quantity of pollen in the air at certain seasons. They may have severe, or even dangerous reactions following the subcutaneous injection of as small an amount as 0.1mgm. of the pollen to which they are sensitive. Sensitiveness of this extreme grade is not produced in animals by treatment with alien serums.

Substances to which individuals are sensitive may gain entry into the body by several routes and cause illness. It may be through air-carried bodies coming into contact with the mucous membrane of the eyes, nose, pharynx, larynx, bronchial mucous membrane, and less often the skin. This may cause a local reaction at the site of contact, or much less often, a reaction in some remote tissue after absorption. Contact may occasionally be more direct than that mentioned above. It may be contact between solutions and the skin or between food and the gastric mucous membrane. This may cause trouble locally, or frequently in distant tissues after absorption, or both. Foreign materials may be carried by the blood or lymph to distant parts after reaching the submucous or subcutaneous tissues by absorption or through the action of infection, or from insect bites, or by hypodermic injections.

Some substances have a greater faculty for sensitizing than others. For instance, pollen sensitizes more frequently than do other parts of a plant. Furthermore, some pollens as ragweed pollen, sensitize much more frequently than do others as golden rod pollen. The proteids of egg sensitize more frequently than do the proteids of beef. The future of the interesting subject in the diagnosis and cure of disease, lies in the discovery and listing of the great number of bodies which tend to sensitize, and in the practical knowledge of the whereabouts of such bodies.

In the subsequent paragraphs are summarized impressions and conclusions gained by an experience with this subject during a period of six years. Our experience has been a little different, perhaps, from that of physicians who specialize in the line of work. We believe this is because relatively few of our cases (except pollen cases) have been referred because of allergic symptoms. The great majority have been picked out of a group of obscure cases observed in a consulting medical practice and many were discovered largely through the rather free use of intracutaneous tests. As a result, we believe we have encountered more of the milder cases and fewer of the severe cases than writers who have specialized on the subject. Also, we believe our percentage of the

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less common manifestations, such as the gastric and bladder cases, has reached higher totals, than have those of physicians who have drawn cases which have been previously diagnosed. In these, I am sure that the proportion of nasal, bronchial and cutaneous cases run higher.

Pollen

Pollen is far the most common cause of allergy in this geographical district. The more important pollens are those of the common abundant weeds. It goes without saying that pollen of uncommon plants are not important for the simple reason that the average individual does not come into contact with them frequently. On this account, the pollen of cultivated plants is of interest only in instances where the habits or occupation of an individual brings him into contact with them frequently. Also light air-carried pollen, as ragweed pollen, is more important than insect carried pollen (daisy, dandelion, golden rod, and other flowers). This is not only because the former are more abundantly produced but also because they are carried by the air for considerable distances from their sources of origin. Furthermore, pollen of plants which pollinate for a short season only, such as some trees, is far less important than the pollen of weeds, as ragweed, which pollinates for weeks or months, and for this reason gives rise to a long and arduous season. For these reasons, therefore, the plants which pollinate over a long season, grow abundantly and produce large quantities of air-carried pollens, are the important factors in the causation of pollen allergy in humans.

Specificity of Pollens

Pollens are very specific in their action, or better expressed, an individual sensitive to pollen often is sensitive to one variety only, in fact, often to a certain pollen growing in a limited district. Some individuals are sensitive to one pollen only. The majority are sensitive to more than one. It is usual to find pollen patients who are sensitive also to other derivatives of plant life, such as orris root or to vegetable proteins, grains, or to emanations from animal hair.

Flowers, Leaves, Roots, Stems, Wood

Flowers, leaves, wood and roots are not common sources of allergy in this district. We have encountered only a few. Worthy of especial mention is the case of a physican of our acquaintance who invariably has nasal and bronchial allergy and swelling of the eyelids within ten minutes if he puts on any variety of panama hat. This experiment he has tried many times. He is sensitive to no other straw and to no other type of hat.

It is quite common to find individuals sensitive to orris root and since this product is used widely in the manufacture of perfumes and toilet articles, such as tooth paste, face powder, sachet, soap, etc., it is worthy of emphasis. One should also mention, in addition to the products derived from plant life, those derived from coal and oil which are used so commonly in perfumes, flavoring extracts, as solvents, drugs, etc., and which are encountered almost daily by a great number of individuals. These should be taken into account in the study of obscure cases.

As examples of hypersensitiveness to products of the above type, may be mentioned benzol, a by-product obtained in the manufacture of coke, and used commonly as a substitute for gasoline and in the arts. We have observed a patient so sensitive to benzol that not only was she made ill when exposed to its fumes, but when a drop of benzol was applied to a scarified area on the skin a wheal developed immediately, finally reaching a length of 20 cm. Many other patients whom we have tested similarly with benzol have given no reaction whatever. We have likewise observed a patient sensitive to the vapors of gasoline; one sensitive to turpentine, who became violently ill after the painting of her house; several sensitive to some constituent of certain perfumes (not orris root) and to face powder. Scratch tests with these gave immediate reactions. We have observed a considerable number of patients who sneeze and notice swelling of the turbinates after inhalation tests made with one or several of the essential oils used commonly in the manufacture of perfumes, but who failed to give positive cutaneous tests. Goodale has mentioned the fact that patients with pollen allergy often sneeze or have asthma after the inhalation of the odor of scented flowers. A distinction must be made between these and patients who are actually specifically sensitive to some constituent of the plant other than pollen.

Drugs

Drug idiosyncrasies have been observed and discussed since the early days of medical science. Cooke has drawn attention to the similarity of their manifestations and those of allergy due to other causes. It is not uncommon to observe patients who are made ill by ordinary doses of cocaine, quinine and other alkaloids, the bromides, iodides, aspirin and other coal tar products, belladonna, arsphenamine and numerous other drugs which to normal individuals have no marked untoward effect. Many remedies called heart depressants have gained their reputations for no reason other than that they tend to sensitize and cause phenomena of allergy. Each of several patients observed by the writer who were

made ill by aspirin were hypersensitive to it and had symptoms resembling those of allergy caused by other agents. The illness in each case was caused by a small dose. The average patient can tolerate very large doses. It is interesting to mention in this connection apophysin and novocaine, as a relatively common cause of chronic eczema of the hands and face in dentists. Striking cutaneous reactions can often be obtained in the drug allergies.

Animal Hair and Feathers

Emanations from the skin and fur of animals have been less frequent causes of allergy in our experience than pollen and the foods. This type of sensitiveness when it exists, however, is equal in severity to that caused by pollen. This source of allergy would not be extremely important were it not for the fact exposure of some individuals even to the fur of animals used in wearing apparel, carpets, curtains, and in the upholstery of furniture causes disagreeable symptoms.

House Dust

This interesting source of allergy has been mentioned recently by Cooke. He was able to obtain typical wheals by the intracutaneous use of extracts of house dust which he could not identify with other allergens. Positive reactions to dust extracts has been traced in one of our cases to a rug and in another to wood smoke.

Smoke

The majority of patients with nasal or bronchial allergy are made worse by the nonspecific irritating effects of smoke or vapors. Some complain specifically of coal smoke, gasoline smoke, or tobacco smoke. We have observed several patients who seemed specifically hypersensitive to certain types of smoke and not to others.

Foods

Food is a very important source of allergy. It has ranked second only to the pollens in our experience. An individual may be sensitive to one article of food or to several articles of food; often to a group of somewhat similar foods such as grain or sea foods. An individual may be sensitive not only to one article of food, such as egg or milk, and to one food only, but may be sensitive to one particular constituent of a food, such as lactalbumen; in fact, in the case of milk, he may be sensitive to and made ill by some article of food eaten by the animal furnishing the milk. This latter very interesting fact has been brought to light especially by pediatricians in tracing out the source of eczema in infants. Frequently an infant is found sensitive to some article which it has never eaten, but which is a constituent of the mother's diet.

Sensitiveness to foods is rarely so marked as is sensitiveness to pollen, although one occasionally encounters patients made violently ill by the merest traces. Delayed reactions are more frequently observed in food cases than in pollen cases.

Patients with infectious diseases, as acute

Bacterial

tonsillitis or acute articular rheumatism, occasionally have hives and other symptoms of allergy. The part played by bacterial proteins in the etiology of allergy has been especially urged by Walker.

In patients who have asthma following "colds," it is important to discover whether the illness is an actual rhinitis or whether it is in reality an attack of nasal allergy due to a reaction against pollen or some other non-bacterial substance. For example, a mother gave us the history of her child who had frequent colds each winter followed by long sieges with asthma. One could have judged from the history that the nasal infection was was the primary cause of the child's asthma. Cutaneous tests proved him very sensitive to egg, however, and after egg was eliminated from the diet he had a number of "colds" but they lasted a few days only and were never accompanied by or followed by asthma.

Intracutaneous tests made with protein of Staphylococcus aureus and albus, and B. coli very commonly give cutaneous reactions which are very different from the controls. They more often resemble the inflammatory reactions given locally by vaccines than the wheals which appear immediately after the use of pollen extracts.

Insects

It is not uncommon for patients and friends to remark that they are made ill by the bites of certain insects. Dr. Canby Robinson mentioned the case of a patient who had a large area of angioneurotic oedema as a result of a hornet's sting. An associate of mine, following insect bite (probably mosquito) had not only generalized urticaria and angioneurotic oedema, but also an attack of intestinal colic, which rendered him very ill for twenty-four hours. He has had milder attacks on numerous occasions following mosquito bites. This source of allergy is very real and is not extremely rare.

Hypodermatic Injections

Hypodermatic injections of vaccine, therapeutic sera, pollen extract, salvarsan, and other drugs frequently give rise to phenomena of allergy which may be very severe; in fact, in rare instances even fatal. Before administering horse serum therapeutically, one should always inquire for a history of hay fever, asthma, and urticaria and if possible, make an intracutaneous test with 0.01 cc. or less of horse ser-

Individuals sensitive to horse dander are not necessarily sensitive to horse serum. In those sensitive to horse serum the therapeutic use of horse serum is very dangerous and should be avoided.

Light

We have recently observed a patient specifically hypersensitive to light—in fact, the blue rays of light. The exposure of the skin of this patient for two and one-half minutes to either white light or blue light gives rise to a wheal which covers the entire area exposed. Exposure of a large area has given rise to chills and general constitutional symptoms. Evidently some product is formed under the influence of light in the patient which is extremely toxic to her and gives rise to manifestations of allergy.

Blood Transfusion

We have observed severe allergic reactions in two patients at the beginning of a blood transfusion which were not due to faulty grouping. The patient, in each instance, was found sensitive to a food which had been eaten by the donor. The reactions were typical of allergy, were relieved by adrenalin, and were analagous, it is believed, to the reactions in infants attributable to sensitiveness to some article of the mother's diet.

Contributory Factors

While hypersensitiveness to alien matter is primarily responsible for symptoms of allergy, other factors may play contributory roles and determine the severity and location of the symptoms. Some of these factors are the mechanical, chemical, odorific, and thermal mentioned by Walker in relation to hay fever and asthma. To these may be added reflexes, functional activity and other factors. The influence of these factors is noticed by the majority of sensitive patients. For example, urticaria in a sensitive individual may be brought out by rubbing the skin, or by pressure on the skin, or by sweating. The rubbing of the eyelid may bring out a large area of angioneurotic oedema. The hypodermatic injection of some harmless substance may give rise to a large oedematous area and subcutaneous hemorrhage. I have known a mercury inunction to cause the appearance of swelling and hemorrhage into the skin, which we feared would become gangrenous.

Patients, who have dyspepsia and abdominal pain as a result of alimentary allergy, are almost invariably made worse by the eating of rough foods, such as nuts or lettuce; by the ingestion of irritating foods such as pepper and mustard; and by the ingestion of stimulating foods, such as alcohol, coffee or salt.

Pollen asthma is usually aggravated by the inhalation of dust or irritating vapors, by the odors of flowers, the essential oils or perfumes, by changes in temperature, changes in barometric pressure, and by the quantity of moisture in the air. Asthma may be either relieved or made worse by a reflex caused by the eating of a meal or by vomiting or by evacuation of the bowels. Asthma is almost invariably made worse by physical exertion.

The above contributory factors are mentioned and emphasized because they often deceive both patient and physician. Each may be inclined to blame secondary factors for the discomfort rather than the primary fundamental cause, e. g., hypersensitiveness. For example, patients with pollen asthma will almost invariably blame wind, dust, smoke, vapors, exposure to cold, or changes in barometric pressure for their discomfort, even though they realize that wind, dust and changes in barometric pressure may have no perceptible ill effect upon them except during the pollen season.

Under contributory causes of allergy should be mentioned infections and functional or organic diseases. Patients often state that their illness started soon after an infectious disease or an operation, especially intra-nasal operations.

Alimentary allergy is more common in individuals who have definite pathology in the alimentary tract or its appendages (such as ulcer, gall stones, or chronic appendicitis) than it is in normal individuals. This phase of the subject has been discussed more fully in a previous paper.

Bronchial allergy due to sensitiveness to milk or pollen may be brought out or made worse by acute bronchitis or rhinitis. Nasal sinusitis and polyps often play a contributory role in the etiology of asthma and nasal allergy. Patients with nasal polyps and asthma of undetermined origin are most difficult to cure and often baffle specialists in every line. The importance of nasal defects in the etiology of asthma, while important has been greatly overestimated in some cases, and many patients have been made much worse by radical work in the nose designed to relieve this condition.

Symptoms

Symptoms of allergy are numerous; in fact, the more one studies the condition the more he is inclined to believe that reactions may involve almost any tissue or organ and cause disorder.

The more common symptoms are those which involve the mucous surfaces, which are exposed most frequently to the action of foreign substances which tend to sensitize, namely, the mucous membrane of the respiratory tract. Symptoms involving the skin, subcutaneous tissues and the internal organs are less common, and are usually part of a general re-

ction resulting from absorption of an offend-
ıg allergin.

Symptoms involving superficial mucous sur-
ıces, may occur as a result of the local effect
f an allergin, or as part of a general reaction.
or example, asthma may be the result of the
ıhalation of pollen or may be the result of a
ıbcutaneous injection of pollen extract. Der-
ıatitis on the hands and face may be a result
f the local action of an allergin on the skin of
ıe hands and face, or as we have observed
ıce, as a direct result of pollen injections in
ıe treatment of hay fever.

Symptoms occurring as a result of a general
eaction are often multiple. For example,
sthma occurring as a result of a general re-
:tion from the eating of egg, is more frequent-
accompanied by other manifestations such
gastrointestinal disturbance, urticaria, etc.,
ıan is asthma caused by the inhalation of
ollen (local reaction).

The symptoms to be mentioned subsequent-
are those which are more commonly ob-
rved in patients having reactions. All may
:cur as a local or as part of a general re-
:tion.

Ocular Symptoms—Oedema of the conjunc-
va, puffiness, itching, swelling and redness
the lids. Excessive lacrimal secretions.

Nasal Symptoms—Sneezing. Pallor and
velling of the mucous membrane of the nose,
sociated usually with excessive watery or
ear mucous secretion.

Pharyngeal Symptoms—Itching of the soft
ılate, pharynx; spasmodic cough; rarely,
ight oedema of the uvula.

Bronchial Symptoms—Bronchial obstruc-
ın associated with inspiratory and expiratory
heezing (the latter more pronounced) and
ten associated with the expectoration of
ick, mucoid sputum, rich in eosinophiles. In
ss marked cases, cough and shortness of
eath on exertion may be the only marked
onchial symptom.

Cutaneous Symptoms—The more conspicu-
ıs are urticaria, angioneurotic oedema, eczе-
a, erythema and pruritis, which may be either
cal or general. The dermatitis is often asso-
ated with marked swelling and redness of the
in, cracking of the skin (especially on the
ınds) profuse greasy secretion, and desqua-
ation of the superficial epithelium. It may
most severe, and when the face is involved,
ay almost obliterate the features and trans-
rm it into a swollen, red, greasy, weeping,
nsightly surface.

Gastro-Intestinal Symptoms — Abdominal
ain, either steady or griping, local or general,
ild or very severe, is the most interesting ab-
ominal symptom. It is often related to the
king of food, and quite frequently appears a
few moments after the ingestion of certain par-
ticular foods to which an individual is sensi-
tive. Honey has been the most common single
cause of acute abdominal pain of allergic origin
in our experience. We have observed no less
than six cases and believe it to be analogous
in every sense to hay fever except that the
stomach is involved instead of the nasal mu-
cous membrane. The cutaneous reactions in
honey cases are very striking. Other aliment-
ary symptoms are abdominal discomfort, sour
stomach, nausea, vomiting, bloating, diar-
rhoea, and mucous stools. Gastrointestinal
upset occurring as a result of allergy may
easily be mistaken for "ptomaine poisoning"
or a surgical lesion. The local signs of peri-
tonitis, fever and leucocytosis fail, however.
It occasionally, however, terminates in an
acute inflammatory process in the gastrointes-
tinal tract, or its appendages. We have ob-
served four cases of acute appendicitis, which
required surgery, to follow a severe attack of
alimentary allergy.

Neurological Symptoms—Asthenia and a
sensation described by the patient as nervous-
ness, is rather frequently observed in patients
who have hay fever, asthma and other symp-
toms of allergy. Weakness may be so marked
as to confine a patient to the house or even to
bed; in fact, I have never observed a patient
more profoundly asthenic than the sensitive
patient mentioned previously who had been
given a dose of horse serum. Patients with
hay fever occasionally complain as much of
weakness as of their respiratory distress.

Headache—May occur as a primary symp-
tom of reaction or may be a sinus headache
caused by obstruction of the outlet of some of
the sinuses, by the swollen nasal membranes.
Headache may be most severe and often yields
quickly to adrenalin in proper dosage.

Arthritis—Joint pain and swelling is a very
definite and interesting manifestation of aller-
gy. My friend, Dr. R. C. Lowdermilk, related
to me the case of a patient who, following a
therapeutic injection of pollen, developed a
typical rheumatic joint, for the first time in her
life; it lasted several hours during her reaction,
and then disappeared completely. The devel-
opment of joint pain and swelling, as part of a
general reaction to therapeutic sera, is not very
uncommon. There is some similarity between
the joint symptoms of acute migratory polyar-
thritis and that of a reaction of allergy. For
example, pain and swelling about a joint may
migrate from joint to joint within a period of a
few hours, or in fact, at times, almost within a
period of minutes. It is impossible that symp-
toms due directly and entirely to local infec-
tion, could appear or disappear at such a rate.
While there is no doubt that acute migratory

poly-arthritis is an acute infectious disease, it is not impossible that some of the local symptoms such as pain and swelling may be in part the result of an allergic reaction about the joint; in fact, we have greatly relieved several cases of acute migratory polyarthritis by the use of adrenalin and believe it is frequently a useful aid in the treatment of this disease. We have used adrenalin in chronic hypertrophic, atrophic and gonococcal arthritis with less or no beneficial effect.

Blood Pressure is usually reduced (90 to 110 mm. of mercury).

Bladder Symptoms—Frequent painful micturition may occur as part of a general reaction. This is discussed in another communication. This type of reaction may be very severe and occurs especially in patients sensitive to vegetables or grains.

Secondary Symptoms

Localized allergy may give rise to secondary symptoms which are often quite interesting. For example, a patient observed by the writer complained of a seasonal headache, which was so severe as to practically incapacitate him for work. It would come on invariably each August and would disappear soon after frost. He was free from headache during one entire year which he spent in Florida. Upon examination, nothing of interest was found except a slight pale swelling of the mucous membrane of the nose with a very small amount of watery secretion. Adrenalin was used locally in the nose with almost immediate relief. Adrenalin used subcutaneously likewise gave relief. Intracutaneous tests with several fall pollens gave typical wheals with pseudopods, also a marked attack of nasal allergy as part of a general reaction. This patient was relieved completely when he was treated as a pollen case The swollen membranes in the nose probably obstructed the outlet of some of the sinuses and gave rise in this way to headache.

Other secondary symptoms of interest are those caused by the swelling of the mucous membranes in the respiratory tract which may cause an embarrassment of respiration, which in severe cases almost borders on suffocation. Oedema of the mucous membrane of the alimentary tract may give rise to symptoms simulating those of intestinal obstruction. This occurred in a patient sensitive to turpentine after the painting of her house.

It is also not difficult to understand how swelling and blanching in the mucous membrane of so delicate a structure as the appendix, could easily lead to obstruction of its lumen, irritation, and finally to an actual inflammatory process. This appeared to be the exciting cause of an acute appendicitis in four of our patients. Chronic allergy may cause eventually, debility and emaciation of such a grade as to overshadow symptoms of the primary disorder, and lead to an error in diagnosis.

Diagnosis

It hardly comes within the scope of this paper to discuss in detail the diagnosis of allergy. For this the reader is referred to the many excellent articles already written on this subject.

Allergy may be suspected in any patient suffering from one or more of the symptoms previously mentioned, especially if there is a history of hay fever, asthma, chronic urticaria, or eczema in one or both parents, and especially if the onset, or relief of symptoms bears some relationship to season, geographical situation, environments such as a house, workshop, stable, city or farm, to time of day, habits, the eating of certain foods, to wearing apparel, odors, animals or pets, etc. Very often, important points can be gained through a careful history which makes it relatively easy to trace out the source of the condition.

The use of dermal, intradermal, and opthalmic tests are always useful and are often indespensible in the diagnosis. Results obtained in this way, however, should be controlled and verified when possible by clinical tests—that is, tests made by the inhalation, ingestion, or avoidance of the suspected substances before final conclusions are drawn.

Treatment

It is hardly possible in this paper to discuss the treatment of hypersensitiveness in detail. This problem may be approached in four ways —first, removal of cause; second, specific protein treatment; third, non-specific protein treatment, and fourth, symptomatic treatment.

When a patient is sensitive to some substance which he does not encounter frequently, removal of the cause may be simple. In the case of pollens, however, which fill the air at certain seasons, removal of the cause can only be accomplished through change in geographical situation. In this case and in the case of sensitiveness to common articles of food, such as milk, eggs, or wheat, which are used so much in cooking, specific protein treatment may be advisable.

In specific protein treatment the offending allergin is given subcutaneously in infinitesimal doses to start with. The dose is increased as rapidly as the patient's tolerance will permit and is continued until the patient gains enough tolerance to stand the amount with which his habits and environment bring him into contact. In a large majority of cases, tolerance can be increased to a point of partial or complete relief when contact with the allergen to which an individual is sensitive is not overwhelmingly great.

If one is unsuccessful in finding the allergin esponsible for an illness symptoms can often e relieved temporarily by the use of non-ɔecific protein therapy. This is not recom-ıended if one can find the allergin to which ıe patient is sensitive.

As a temporary expedient, the use of adrena-n can be recommended and if given in suffi-ient doses should relieve almost every case. olerance for adrenalin varies so greatly in ifferent patients that it is impossible to sur-ıise the suitable dose for any individual. For ıis reason it is advisable to start with 0.5 cc. r less subcutaneously or intramuscularly iven slowly. Doses of 0.25 to 0.5 cc. can be epeated at five or ten-minute intervals until ıe patient is either relieved or until the symp-ɔms produced by adrenalin are more disagree-ble than those of his allergy. The adrenalin an be repeated every three to twenty-four ours, depending upon the time of recurrence f symptoms. It can be continued until a more ractical and more permanent method of treat-ıent can be instituted.

Summary and Conclusions

A certain rather large per cent of indi-iduals inherit a constitution which makes it ɔssible for it to become readily hypersensitive o foreign matter. Once sensitive, an indi-idual may have severe symptoms of reaction vhenever he comes into intimate contact with he substances to which he is sensitive. Pa-ients are frequently specifically hypersenti-ive to certain varieties of pollen, less frequent-y to substances which can be extracted from he stems, flowers, roots, leaves or woody mat-er of plants, also to products obtained in the listillation of coal, wood and crude oil, also o emanations from animal hair or feathers, to lrugs, dust, smoke, foods, products of infec-ion, insects, etc.

As contributory causes which makes the ɨymptoms more severe are non-specific irri-ants of any sort, functional activity, reflexes, nfectious, functional, or organic diseases. The mmediate effect of a contributary cause often leceives the patient and leads him to blame it or his illness rather than the primary cause, ɨpecific hypersensitiveness.

The more common symptoms are the occu-ar, nasal, pharyngeal, bronchial, cutaneous ınd reduced blood pressure, less often gastro-ntestinal symptoms, neurological symptoms, oints symptoms, bladder symptoms, and other ɔbscure symptoms.

The diagnosis can be made in a majority of :ases through information gained by history, ɔhysical examination, cutaneous tests, opthal-mic tests and clinical tests.

The condition can be relieved in a large per :ent of patients by avoidance of the substances to which they may be sensitive. When this is impossible or impractical, specific protein treatment is justifiable. Adrenalin is useful for temporary relief.

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RATIONAL PHYSIOTHERAPY IN THE TREATMENT OF PULMONARY TUBERCULOSIS

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THE treatment of early pulmonary tuberculosis is neither deeply intricate nor exceedingly simple. It does not require a great deal of highly skillful technique, but consists of planning of details and analyzing the situation in each case. The carrying out of these details is a simple matter, but the planning of them so as to enable the patient to carry on a useful life, and still obtain sufficient rest and nourishment to cure him, is at one and the same time a highly specialized branch of medical practice and often very tedious, both to patient and practitioner. It is very easy to order the patient to "go to bed and remain there," but when the livelihood of several members of a family depends on this patient, such a procedure is impossible. This paper will attempt to set forth some of the principles of treating early cases of pulmonary tuberculosis, especially from the standpoint of physiotherapeutic means, in such a way as to enable a patient of moderate means to pursue the necessary functions of livlihood and still overcome his infection, with as little expense as is possible in the surrounding environment. The following phases will be discussed:

1. Removal of the inciting factor.
2. Rest.
   a. Mental.
   b. Physical.
3. Diet and hygiene.
4. Medication.
   a. Symptomatic.
   b. Incidental.
5. Physiotherapeutic means.
   a. Hydrotherapy.
   b. Electrotherapy.
      (1) Radiant light.
      (2) Actinic light.
      (3) Diathermy.
      (4) High frequency.
   c. Vibration .
6. Treatment of concomitant symptoms.
   a. Hyperacidity.
   b. Nasal irritation.
   c. Constipation.
   d. Localized peritonitis.

Read before the Western Electrotherapeutic Association, Kansas City, April 19, 1923.

The most important prerequisite to the successful treatment of any disease is an early, positive diagnosis. In a disease like tuberculosis, this must especially be emphasized, for, if a diagnosis and the treatment of tuberculosis is deferred until the physical findings indicate an extensive inflammatory change, or the breaking down of a large amount of tissue, the problem of treatment becomes vastly more difficult. If, however, efforts toward inducing repair are instituted before the process has broken through the protective mechanism of the mediastinum to any great extent, the problem is relatively simple. The writer believes that a diagnosis of incipient tuberculosis is possible to be made before the inflammatory change in the lungs has progressed sufficiently to give the classical physical findings of rales, tubular or bronchial breathing, fever, or even definite X-ray findings. Let the following facts be considered: Statistical death reports from all diseases, place the proportion of deaths to all others as one to ten or one to fourteen. In one large institution, very careful routine post morten examination on all patients dying from any cause whatsoever, including accident, show tubercular scars in 97 to 99 per cent of all cases examined. Medical science is becoming daily more convinced of the fact that practically 100 per cent of humanity is infected with tuberculosis before the twentieth year, and that one out of every seven to ten persons show the disease active periodically or continuously.

With these facts in view, does it not stand to reason that, in a physician's office, which is the rendezvous of the physically deranged, the percentage of persons showing active tuberculosis should run about 10 per cent? Or even more? This has been the experience of the writer and his associates. If one is on the lookout for tuberculosis as one of the first conditions to be sought, rather than the last, many more successful diagnoses of the condition would be made, and many patients cured before the disease had made sufficient ingress to necessitate prolonged treatment. A host of subterfuge diagnosis, such as "nervousness," "insomnia," "nervous breakdown," "idiopathic hyperacidity," "malnutrition," "indigestion," "palpitation," and others, would be eliminated, all of which are but leading symptoms of incipient tuberculosis.

After an early diagnosis, successful treatment is the primary consideration. The more engrossed one becomes in the question of the treatment of early tuberculosis, the more forcibly he is struck with the fact that the treatment of this condition lies chiefly in the realms of Physiotherapy. Surgery is unnecessary; medication is incidental and symptomatic. The question arises of how much treatment to employ, without useless effort on the part of both the physician and patient, and still be doing all that is necessary.

The first effort must be directed toward educating the patient to a realization of his state and to teach him to co-operate quickly and intelligently with the physician. For, without intelligent and complete co-operation between the two, treatment is well nigh impossible. The patient's condition must be explained to him; the penalty of failure to co-operate must be made plain; and he must be thoroughly impressed with the fact that his convalescence will not be a matter of weeks, but of months and even years, which will be interspersed with periods of discouraging remission. He should be made to understand that, just in such a measure as he devotes his efforts toward getting well, will he get well. The responsibility of governing himself by his reactions to treatment should be laid upon him. The patient need not be a college graduate to comprehend—indeed, in free clinic work the writer has demonstrated that ignorant negroes are just as capable of carrying treatment to a successful finish as the student or teacher. Successful convalescence is not so much a matter of erudition as it is of innate strength of character. With correct supervision, the person of character will recover rapidly, whereas the spineless one will never do so unless he be coerced by a stronger will, or remain in an institution until recovery is practically completed.

The inciting factor must be sought for, and if still potent, must be removed. In order of importance, the inciting factors seem to be:

1. Lack of rest.
2. Physical overwork.
3. Debilitating or focal infection.
4. Mental and nervous strain.
5. Combinations of these.

In most cases the inciting cause is made up of several of these factors. The terms, "lack of rest," and "physical overwork" are not synonymous, but relative. They must be applied to each case individually, and as no two persons react the same to similar amounts of work, rest and nervous wear and tear. Often it takes careful analysis to tell which of the many incidents of a man's life were responsible for the trouble. In some cases the inciting cause is only temporarily active, such as a debilitating infection, and no longer is potent, but the patient, under his present conditions of living cannot "pull up" to overcome the handicap placed upon him at that time. At other times the factor is continuously active—focal infec-

tion, overwork, nervous strain, etc. Treatment without removing the inciting factor would be as futile as trying to keep a bucket with a hole in its bottom filled with water. The inciting factor must be removed.

Rest. Most important of all therapeutic agents is rest. Without it nothing can be accomplished. In the pulmonary type of the disease, rest must be both physical and nervous. The toxin of the tubercle bacillus circulates through the body, and acts upon the nervous system by stimulating it. There is a "racing of the engine," over long periods of time, which is evinced by various reactions—mental hyperactivity, muscle tension, hyperacidity, rapid heart, etc. This irritation, as well as physical over exertion, lowers the resistance of the body, and allows extension of the infective process, which in turn liberates more toxin. Often great nicety of judgment and much change in routine is necessary before sufficient rest for the patient's requirements is obtained, without eliminating absolutely necessary activities, such as wage-earning, caring for children, etc. The criterion of sufficient rest is steady improvement. Rest in bed is necessary for all cases in the beginning, varying from two to twenty-four hours out of the twenty-four. The temperature and gain in weight is the index of the time in bed required.

Under the heading of "rest" should be mentioned "excess load." Anything which is detrimental to the normal physiology of the system should be considered as excess load. It takes very little to constitute an excess load for a tubercular patient, and all adverse factors should be eliminated as far as possible. This term includes, not only pathological factors—infected tonsils, etc.—but also nervous strain and physical overactivity.

Diet. Diet will not be discussed at length. It should be rich, abundant and nutritious. If the alimentary functions are disturbed by heavy eating, the meals should be smaller and more numerous—often the patient is told to eat six small meals instead of three large meals a day. Although the shortness of the paper precludes elaboration of this phase of treatment, let it be borne in mind that diet is one of the most important means of building up the patient.

Medication. The employment of medication is incidental and symptomatic. The ordinary symptomatic treatment need not be presented. Most patients require some sort of medicine before they feel that they are getting full treatment, and a tonic is the best means of satisfying them. Strychnine seems to have a definite beneficial effect, and advanced cases show a great tolerance for this drug. Apparently the strychnine counteracts the effect of the tuberculosis toxin, and it is given in gradually increasing doses. Signs of saturation are carefully looked for, and when apparent, dosage is decreased or discontinued temporarily. Arsenic is also beneficial, and should be given over long periods.

Hydrotherapy is a useful measure. A cold body sponge or shower is given every morning, using very cold water, followed by a brisk, thorough rubdown, which is continued until the skin is red and glowing. The room should be warm; the time of application of water to the body should not exceed fifteen seconds. It is good practice to begin gradually, bathing only the face and arms the first day, and each day to include another member or quadrant, until, after a week, the whole body is being bathed each time. The cold bath has a very definite tonic effect, and the patient feels the lack of it when it is omitted. For insomnia and nervousness, a hot bath at night is a powerful factor in inducing sleep. It should be prolonged from 10 to 20 minutes, with the whole body immersed. The patient should immediately go to bed, and remain there at least 8 or 10 hours to offset the relaxing effect of the bath.

Sunlight is necessary for the proper physiologic activity of all growing things. When partially deprived of it, the body can readjust itself to the new condition. When altogether deprived of it, growth and function are perverted. As civilization proceeds, mankind is more and more sinning against the hygienic laws of nature, shutting himself into houses with artificial light and poor air, indulging in improper balance of food, rest, and exercise, and insulating the body from the light, air, and other natural stimulating factors. In conditions such as tuberculosis, these natural forces —light, heat, fresh air, and moisture may be employed to stimulate the regenerative and resisting powers of the body. Sunlight is a combination of visible light, heat, and the chemically-active rays, known as "ultra-violet" or "actinic" rays. The combination of these various rays in sunlight is in proportions that are relatively stable. This combination, as it exists, is, no doubt, the best for the well-being of normal things, both plant and animal. However, for various abnormal states of vital functions, this combination is not, in most cases, one which is best for righting the deranged activity. If, though, the proportion can be artificially varied, the righting of these abnormal activities will be induced more easily or progress more rapidly, or both.

The physiotherapist can, and does, vary the combination of these various rates of ether-vibration, which are perceptible to the senses as heat, light, or by means of the spectrum, as

ultra-violet light, in order that they may be more effective in combatting the inroads of disease. He can produce heat without light, light without perceptible heat, and ultra-violet light with a great decrease of heat and visible light. With various combinations of these different modalities, vastly more can be accomplished in the treatment of disease than by medication or pure sunlight. These various modalities will but be touched upon—the technique, dosage, etc., are omitted, as they may be procured in many places.

Radiant Light and Heat. This is ordinary, visible light, as produced by an incandescent globe of 500 to 1,500 watts. The effects of heat produced by this means are several: superficial capillaries are dilated, the circulation is equalized, and the skin is stimulated to function more healthily. Besides these effects, we have those that come from any sort of heat—hot water bottle, fomentations, etc. In pulmonary tuberculosis, large areas of the body are exposed at once, often one-half to the whole of it. Painful areas—pleurisies (acute and chronic), neuritic joints and reflex neuritic areas, gastric pain, and bone lesions are relieved. This relief is often but transitory, and lasts from a few minutes to several hours. Radiant light and heat will do what superficial heat of any description will do and accomplish it more quickly. It is generally more beneficial than other means of producing heat, because the area upon which it acts is much larger and there is the added effect of greater capillary dilatation, and of the light ray itself. The bronchitis and sinusitis often associated with tuberculosis often respond to radiant treatment alone. Radiant light should always be preliminary to actinic light therapy in tuberculosis, as it enables the actinic rays to act more effectively.

Actinic Light. The Actinic Light is one of the most effective modalities we have in the treatment of tuberculosis pulmonalis. There are two types of ultra-violet energy, and these types have different actions upon the body. The far-ultra-violet intensity has a wave length of from 3,000 to 2,000 Angstrom units; the near-ultra-violet intensity has a wave length of 3,920 to 3,000 A. U. According to Pacini, the action of the near and far intensities is as follows:

Near Ultra-Violet Intensity

1. Biologic (dominantly).
2. Chemically oxidizing.
3. Relatively penetrating.
4. Matabolic synergist.
5. Increases calcium and phosphorus in blood.

Far Ultra-Violet Intensities

1. Abiotic (dominantly).
2. Chemically reducing.
3. Relatively superficial.
4. Metabolic depressor.

The near-ultra-violet energy is produced by the type of mercury-quartz lamp known as the "air-cooled" lamp, while the far-ultra-violet energy by the "water-cooled" or Kromeyer lamp. Pulmonary tuberculosis is a general condition in which we wish to accomplish the following results: increase the metabolism, increase the red and white blood count and hemoglobin, stimulate formation of new tissue, and raise the calcium content of the blood. Hence the near intensity light is the logical one to use. To obtain the best results it should be generated at a pressure of 70 volts. With a higher voltage there is an increase of the short-wave energy, which counteracts the long-wave energy; and with a lower voltage less of the long-wave energy is produced. The dosage is at first very light, and is increased each subsequent treatment. Beginning with one or two minutes, it is increased to 30 or 50 minutes. There are two methods of proceedure. One is to expose a large area of the body, such as the front and back of the chest and abdomen, or both for two minutes at a distance of 24 to 28 inches. Each day the time is increased one minute, and the distance decreased one inch until the patient is receiving long dosage at small distance. The other method is known as the fractional dosage method. In this the light is kept at a distance of about 40 inches at all times. Beginning with the feet, each day an added fraction of the body is exposed for one minute to the light, after exposing successively those areas which were previously exposed; to each of these a minute is also added until the fifteenth day. After that the whole body, from neck to foot, front and back is rayed for 30 minutes every third day, until the condition warrants discontinuing treatment. Sudden, lengthy exposures over large areas must be avoided in the beginning, as very dangerous results—internal hemorrhage, intense toxicity, etc., might follow.

Diathermy. By diathermy is meant the process of heating tissues as a result of their resistance to the passage of an electric current. Bacteria are weakened when the temperature of the tissues surrounding them is increased above their optimum point. Fever is one of the methods Nature has of combatting bacterial invasion and propagation. By means of diathermy, a localized fever is produced which may be carried to any point, even to coagulation of tissue. Besides weakening the bacterial invasive powers, heat stimulates the body protective functions—circulation, metabolism, etc.

Hence, the effect of diathermy is two-fold: adverse to the organisms, and beneficial to the tissues. In pulmonary tuberculosis, diathermy is very beneficial, both for the inflammatory process in the lung proper, and for the often-associated pleurisy. It is given over the apices, with the indifferent electrode over the back. All electrodes should be large, the indifferent electrode at least 8x10 inches, and the active electrodes large enough to cover one lobe of lung. Current should he heavy enough to give the patient a pronounced sensation of deep warmth. It is a good plan to use a bifurcated cord and treat both apices at once. Treatments should be given every day, and last from 10 to 30 minutes. Too much current is poor practice, as the skin is thereby heated before the intervening tissue, and the beneficial effect is lost. For a short time following the first treatments, there may be an exacerbation of symptoms, coughing, expectoration, etc., but this is the result of renewed resistance, and not of expansion of inflammation.

High Frequency. High Frequency is stimulative, agalgesic and causes hyperemia. In cases where the blood pressure is low, tonic sparks to the spine, and even over large areas of the body will cause it to rise. This rise, though transitory, is stimulative, and when repeated often enough, is beneficial. A large body electrode and a one-fourth to one-half inch spark is used. The application to the body is made through a thin garment, to enhance the effect.

In chronic pleurisies, the reflex hyperemia induced by the application of the vacuum tube over the affected area often reduces the pain markedly.

Where the muscular atrophy about the shoulder-girdle does not respond to other treatment, or grows progressively worse, the tonic effect of the vacuum-tube should be tried.

Vibration. Although the writer has had little personal experience with this modality, he has come across the following points of interest in the study of the subject: Vibration to the spine is beneficial in low blood-pressure, headache, constipation, diarrhea and impaired digestion. In the future this phase will be more thoroughly studied.

Treatment of Concomitant Symptoms. These will be merely touched upon as they are enumerated:

(1) Constipation. Intestinal massage with the surging sinusoidal current is the treatment "par excellence" for this condition. The improvement under this form of treatment is very marked in almost all of the cases, especially in the early ones. After the third or fourth treatment the patient voluntarily tenders the information that he is better. Vibration to the spine is also said to have definite beneficial effect.

(2) Hyperacidity is one of the most frequent and most uncomfortable symptoms complained of—indeed, very often it is this symptom which brings the unsuspecting tubercular to the office. The pain of hyperacidity is relieved for 24 to 48 hours by exposure to the actinic light (air-cooled). When this is daily repeated, pain is almost entirely relieved. Where there is relaxation of the abdominal ligaments and visceroptosis, the surging sinusoidal current tones up the stomach and aids in emptying the stomach. The galvanic current (negative pole), and diathermy often temporarily relieve the pain. Soda is often given. The hyperacidity itself cannot be altered by physiotherapeutic means, but improves with the general condition.

(3) **Nasal Irritation** is an unpleasant symptom. and often one of the first. High frequency (indirect method) with special applicator, or the actinic light (water cooled) with the nasal applicator relieves this promptly.

(4) Localized peritonitis is often present as an early symptom, and is often diagnosed as chronic appendicitis. Needless to say that operative procedure does not relieve the symptoms. Many diagnoses are really a localized peritonitis, or reflex irritation. Actinotherapy. radiotherapy, diathermy and the negative galvanic current are used with marked effect.

Summary

1. The treatment of early pulmonary tuberculosis is falling more and more into the field of Physiotherapy.

2. An early diagnosis of pulmonary tuberculosis is necessary to successful treatment, and it may be made before there is extensive fibrosis enough to produce the older classical physical findings of the disease.

3. Education of the patient and close co-operation between him and the physician is absolutely necessary.

4. The inciting factor must be removed, as well as the excess load before treatment can be successfully carried out.

Bibliography

Waters, B. H.—J. A. M. A., 75, 1187.
Brown, L.—A. M. J C Lin Med., Sept., 1920, p. 160.
Hendriks, A.—Nederlander Zeit.
Simon, G.—Zeit Fur Tuberkulose.
Jacono—J. A. M. A., 79, 508.
Villaret, J. A. M. A., 78, 1495
Trudeau, B F.—J. A. M. A., 77, 1326
Sergent—Progres Medicale
Janowski—Annal. de Medecine.
Sauerbach—Siglo Medico.
Webb, Forster & Gilbert—J. A. M. A., 76, 846.
Brown, L.—J. A. M. A., 79, 246.
Fried—Medecinische Klinik.
Pottenger—J. A. M. A., 79, 728.
Armand-Delille, J. A. M. A., 77, 234
Pottenger—Muscle Spasm and Degeneration
Plank—Actinic Ray Therapy.
Pacini—Outline of Ultraviolet Therapy.
Grover—High Frequency.
Neiswanger—Electrotherapeutic Technique.
Morse—Morse Wave Generator.

"DO WE PROFIT BY OUR MISTAKES?"

W. E. MOWERY, M. D.,
Salina, Kansas.

THE measurement of a surgeon's ability cannot be calculated by the mistakes he makes, but his exact caliber is determined by the freedom with which he acknowledges them.

If we admit our individual susceptibility to them we are prepared to convert them into assets but so long as we deny this susceptibility they remain decided liabilities.

Our responsibility is not limited by what we do or do not do, but how we do it. We should, therefore, in so far as possible, endeavor to make our mistakes on the safest side.

In my earlier experience I lacked confidence, feared the counsel of my colleagues who had had more experience, thinking perhaps I might have made some mistake which would be discovered and exposed. Here is where I invited disaster, for so long as I remained in this position I was unprepared to meet the enemy regardless of which way I moved, for if I were wrong I was jeopardizing both my reputation and my patient's welfare and with slight chance of improviny my position, while on the other hand a wise counsel could have set me right, relieving the patients' ills and my conscience, with a minimum amount of damage from exposure, which, after all, was the lesser of the evils. If I was right I was courting unnecessary danger by fearing that which did not exist and reducing my mental vitality with the toxemia of mistakes.

As I acquired experience and began to welcome criticism I developed self-confidence and began to profit by my own as well as the mistakes of others.

Another mistake which I nursed until it developed into a monstrosity almost too large to wean was a carelessness in keeping case records.

The Doctor's "day book" has disgraced his standing in the business world, but it is usually a masterpiece of perfection when compared with his case history book. Now, this is not a shame; it is criminal negligence. The records of the cases treated by the average doctor, be he rural or city, if properly tabulated for ten years will contain more food for thought than his library. They are as necessary as the telephone and the automobile, just as remunerative, not a drudgery but a recreation.

I feel sorry for the surgeon who never loses a case because one of two things is certain, he either lies, or his courage slips when he meets pathology.

Read before the Annual Meeting, Kansas Medical Society, Wichita, April 26 and 28, 1921.

We are a mistake as a surgeon so long as we deny the patient with pathology the prerogative of an operation regardless of the consequences. I do not mean that we should not give the sick patient the advantage of our best judgment. This is implied. But when we are face to face with certain disaster which an operation may avert we should have the courage of our convictions and push the operation home. The patient who dies while the surgeon is playing for an easy position free from danger is just as dead as the patient who dies as a result of an honest effort to save him by operation and I admire the surgeon whose steel in his nerve is tempered to the same degree as that in his scalpel.

You may say for the sake of argument that there is no difference; they are both dead.

I would liken this to two soldiers, one who is killed in battle and the other who is shot for a traitor. It is true they are both dead, but to me there is a great difference—one dies facing the enemy, the other with his back to the wall; one is a fighter, the other a coward; the death of one is heroic, the other a disgrace.

By the following case reports I hope to throw light into some pitfalls into which I descended.

A nullipara, age 19, was taken ten days ago with acute pain in the abdomen, at first generalized, but within a few days localized to the right side; the acute pain subsided in a day or two, but marked soreness has remained. She vomited two or three times at the outset and has run a little temperature every day. She had had three or four attacks in the past few months, has had the diseases of childhood, no other illness. Menstruation is regular, no pain last menstruation—five months ago. Family history is negative.

Examination—The abdomen is not distended but there is some muscular rigidity, especially on the right side and she is very tender in the right iliac fossa. No mass can be outlined. The uterus contains a living foetus. The urine is normal. Red blood corpuscles four million. White blood corpuscles fourteen thousand. Hemoglobin, eighty-five per cent. Coagulation time four minutes. Other examination is negative.

Operation—The appendix is adhered retrocecally, base normal, distal half swollen, inflamed and filled with pus. It is removed. No other trouble is found. The abdomen is closed without drainage. Following her operation the first three days she took liquids freely, did not vomit and required no opiates. During the night of the fourth day she was restless and was given one-eighth grain of morphine. The next morning she was given an enema which was followed by a good bowel movement and one large emesis. The fifth day she had soft

liet, good bowel movement, vomited her sup-ıer at 6:30 p. m., at 7:30 p. m. was given fif-een grains of verinol, but had a restless night. The sixth day she had free emesis at 6 p. m. The seventh day she was nauseated and at 5 . m. vomited freely, refused her supper, had astor oil and a restless night. The eighth day he vomited at 3 a. m., vomited breakfast, had requent urination all day and 7:30 p. m. mis-arried.

I will comment on her progress thus far as it narks the first stage of her post operative ondition. During these eight days since her peration the temperature has never gone bove 99.6 per mouth but some time during he twenty-four hours of each day it reached 9. which is evidence of slight infection until roven otherwise. The abdomen has distended little at times but this was relieved by enemas nd the bowels moved practically every day. She has been rather uncomfortable and rest-ess at times but has only had one-fourth grain f morphine and fifteen grains of verinol since ier operation, which is not as much as is re-uired by the average case following simple ppendectomy. Since the fourth day she has omited every day but never more than once xcept on the eighth day she vomited three imes. As a whole her condition was good and ier disturbances charged to the approaching bortion.

On the ninth day she felt good, bowels noved three times and our worries on this ase were charged to past events. The tenth lay the bowels moved five times, at 5 p. m. he had free emesis, belched up some bad tast-ng fluid and gastric lavage was ordered. It vas found impossible to introduce a tube ast the cardiac end of the oesophagus be-ause of some constriction. The eleventh day he was slightly distended but complained of o pain in the abdomen. The stiches were emoved, the wound was healed. At 12:30 a. n., 12:30 p. m. and at 9:30 p. m. she vomited. The emeses were quite copious and highly olored. The bowels did not move on this day nd since the emeses were from nine to twelve ours apart and the bowels had acted so freely n the previous day the true value of the symp-oms was not recognized. The twelfth day she assed a large amount of flatus. The disten-ion in the abdomen became better and she did ot vomit until 10 p. m., twenty-four and a alf hours after her last emesis. The thirteenth lay she vomited at 1 a. m. a brownish fluid which was very offensive and at 5 p. m., six-teen hours later, she had another emesis, free nd very offensive. The abdomen had dis-ended quite a little more in the last ten hours nd for the first time I was able to outline a slight dullness over the iliac fossa. She had absolutely no pain and while she showed the strain of her long continued illness she certainly did not have the expression of a patient moribund from intestinal obstruction. An incomplete obstruction was diagnosed and it was decided to operate on her at once. A mass of adhesions producing a complete obstruction of the bowel three feet from the iliocecal junction and inclosing a small pocket containing about one ounce of thick yellow pus was found. Above the obstruction the bowel was greatly distended, while below it was so completely collapsed that the inner surface of the gut was agglutinated together reminding one of the fingers of a rubber glove which have been collapsed and stuck. All of the intestines were very dark and necrotic spots, some of which were almost perforated, were seen here and there throughout all of the small intestines. Immediately following the operation she suffered profound shock but soon rallied and twenty-four hours later she was in fair condition. She vomited once just after she returned from the operating room, she took forty-two ounces of liquids, passed a large amount of flatus, the abdominal distention nearly all disappeared, she had no pain, looked good and said she felt fine. Thirty-six hours after the operation she was suddenly seized with an excruciating pain in the abdomen and died in three hours. The immediate cause of her death was attributed to a perforation of a necrotic area in the intestinal wall.

Case No. 2—A school girl, age 8, was taken sick with German measles; I was consulted by 'phone but did not see her. The fourth day of her illness I was called to see her because she had developed a high temperature and found her suffering with follicular tonsilitis. Three days later I was again called to see her, this time on account of a pain in her abdomen, her mother stated that she had complained of stomach ache during the night. This was attributed to some indiscretion in her diet. At 8 a. m. she was complaining of severe pain in the abdomen which is general and she was unable to localize it to any particular region. The abdomen was soft and no tenderness could be found. At 3:30 p. m. the pain suddenly became agonizing and I was recalled to her bedside. This time I found the entire abdomen very rigid and she was complaining of so much pain that I was unable to make a satisfactory examination. She had a white blood count of twenty thousand and a diagnosis of a perforated appendix was made. She was removed to the hospital and immediately prepared for operation. The peritoneum presented a very marked congestion. As soon as it was opened a large amount of thin gray fluid escaped. The appendix was gangrenous and perforated. A fecal concretion, the size of a chili bean, was found free

in the region of the appendix. There were no adhesions or attempts at walling off, the whole peritoneal cavity was infected and very much inflamed. The wound was drained with a number of cigarettes and rubber dams and left open. Owing to the over crowded condition of the Hospital she was removed to her home on the third day. Ten days later she returned to the Hospital and a pelvic abscess containing a quart of very offensive pus was drained through the original incision. She was removed to her home on the same day. One month later she developed a well marked chorea. On the thirty-sixth day following her last operation she vomited four or five times in rapid succession. This subsided following an enema. Five days later, which was forty-one days after her second operation, at 4 a. m. she began to vomit and between then and 11 a. m. she vomited six or eight times. I saw her at 2 p. m. and while she had no distention in the morning it was then quite marked. She had not vomited since 11 a. m., had absolutely no pain and did not look much, if any, sicker than she did the previous day. She laughed and waved goodbye to her playmates and was apparently as happy as if she was going to a Sunday school picnic. However, the horrors of the mistakes in the previous case in which I was a victim of procrastination, the thief of time, still haunted me and I was now anxious in so far as possible to redeem my mistakes and reap the profits for which I paid such a tremendous price and even though there was an absence of pain and the vomiting was not persistent and progressively growing worse, a diagnosis of mechanical obstruction due to inflammation and adhesions was made and I decided to operate while she had a fighting chance. The pathology of the previous case was here pictured in its early stage as a mass of adhesions of a similar nature had produced a complete mechanical obstruction. This was released, patient obtained immediate relief and made an uneventful recovery.

The scope of this subject is so broad that I might carry its discussion much further, but the object in reporting these two cases was to emphasize one point, which until confronted with disaster I had not recognized, that is, while as a rule patients with complete mechanical obstruction of the bowel vomit persistently and the vomiting progressively grows worse until they are either relieved or exhausted, but when the obstruction is the result of infection and inflammation the scene may be changed and the patient allowed to pass the operable stage if we depend upon this symptom as a guide to their condition. If I have succeeded in impressing this one point, my efforts have not been in vain, as in so far as I know all previous teaching and literature have failed to demonstrate this point. — Kansas Medical Journal.

A NEW OPERATION FOR PTOSIS

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Oklahoma City, Okla.

PTOSIS is a condition in which the upper eyelid covers or partially covers the eye ball, and the inability of the person afflicted to raise it.

We will consider only the congenital and acquired forms, for these are the only conditions that we are interested in, as far as there are being remedial to operation.

The congenital form is, perhaps, due to a lack of development of the lavator palpebrae superioris, or of its nerve supply, while the acquired form is due to traumatism or disease which involves the third nerve.

The muscles which play a part in controlling the upper eyelid are: The lavator palpebrae superioris, which raises the lid. The orbicularis palpebrarum, which closes the lids; the corrugator supercillii, which draws the eyebrow downward and inward, and the tensortarsi, which compresses the puncta and lachrimal sac.

The lavator palpebrae superioris is within the orbit, and arises from the under surface of the lesser wing of the sphenoid and is inserted into the anterior surface of the superior tarsal plate, and is supplied by a branch of the third nerve. The other muscles which I enumerated, are external to the orbit and are supplied by branches of the facial nerve.



No. 1—Top of Flap Excised, Showing Section of Skin and Tissue Removed

We can see from the anatomy that the lavator palpebrae superioris is the muscle whose function is solely to raise the eyelid, so when this muscle is paralyzed or impaired, there is an inability to raise the lid, it is to overcome this defect that we operate.

At the present time we have no less than twenty-nine different operations, including modifications, by as many different men, to remedy this defect.

The operation which I am proposing today is one in which a section of skin and tissue is

removed from the lid, the section removed is from 4 to 6 mm wide at the base and comes to a point at the inner and outer canthus respectively. The shape of this section removed is that of an obtuse-angled triangle. The flap, which is resected up, is from 15 to 20 mm long and about 4 mm wide at the top. The width of the section removed from the lid as well as the length of the flap depends upon the size of the lid and the degree of ptosis.



No. 2—Operation Completed

After the sections are removed and the flap resected up, the lines of incisions are then brought together, and the excess of the flap which you will have after it is brought in position, is excised, and the end of the flap is then sewed to the frontal portion of the occipito frontalis, and the other margins of the incision are united with cat-gut sutures.



No. 3—Congenital ptosis of both eyelids tilting backward of head in order to obtain vision.

I operate one eye at a time, so that my patient can see to go about. After two days I remove the bandage from the eye, and use a small patch over the wound and seal with collodion. In a week I operate upon the other lid if necessary. Advantages of the operation:

A paralysis of the third cranial nerve which supplies the lavator palpebrae superioris, does not affect the function of the frontalis, so in this way the operation is more feasible than where the operation depends upon the use of the lavator palpebrae, which is a parlyzed muscle.



No. 4—Four Weeks After Operation

The operation which depends solely upon the removal of a strip of skin from the lid, while temporarily gives fairly good results, but as the patient gets older and the skin sags the condition will return. This fault is overcome in the operation I present, by the use of the frontal portion of the frontalis, which does not cease to function even in old age.

Some operators advocate the resection of a part of the tarsus. This often produces unsatisfactory results.

Tansley's operation involves very much the same principles, as the operation which I present. However, his technic of tunneling under the eyebrow in order to attach his flap to the frontalis, is objectionable in my opinion, for the reason, that integument is in apposition to muscular tissue and acts as a foreign body. I overcome this by dissecting the flap up to the point where the flap is attached to the frontalis, the excess of the flap is excised. This also avoids any tumefied condition over the brow that may exist where the flap is buried.

The operation is simple and the results are very satisfactory.

304 Security Bldg.

Pitzman, St. Louis—Upon old infections—secondary infections—use no antiseptics, only boiled water packs.

Kinard, Kansas City—If there is no hyperplasia, there is no hyperthyroidism.

Continuing "The Medical Fortnightly and Laboratory News."

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The Editors' Forum

CYTOST LIBERATED IN PREGNANCY

DR. FENTON B. TURCK has published (American Journal of Obstetrics and Gynecology, Feb. 23) some work done in what we call intoxication of pregnancy. Turck resents the criticism that clinicians make regarding the difficulty of using in medical practice ideas elaborated by the biologist. He says, we must view biology as based upon the cell and its activities, and medicine as but the application of science of biology, for there is not one cell for the biologist, another for the physical chemist and another for the clinician. Medical practice must follow biology. The toxemia of pregnancy is a condition analogous to the toxemia of burns, of sloughing wounds, of shock. Turck shows that tissue toxin is only a biological product which acts as a stimulant to life and causes cell division and metabolism. It is not a "foreign protein" poison, neither foreign nor protein. It is derived from hemologous tissue, not foreign tissue. The protein is burned off to an ash. It is not a poison at all. This tissue substance we call cytost is in low concentration a stimulant to cell metabolism acting in excess of the normal on the splanchnic area and produces a definite reaction and death. Cytost is counterposed by an antibody-anticytost found in the blood serum. It has been long known to biologists that toxemia from disintegrating tissue occurs during pregnancy, also in mild degrees during menstrual periods, adolescence and the climacteric, but pregnancy imposes heavier burden. Immunity against this specific tissue substance has been scientifically and practically applied, and should become an integral part of clinical practice. The author has demonstrated the scheme upon pregnant dogs, rats and cats, and has been able to confer an inherited immunity transmitted to the fetus. Kittens born of immunized mothers lived much longer lives after contamination than those which received no protection. The discussion applies not only to shock in pregnancy but as well to those cases in which rapid destruction and rapid disintegration of tissue after severe wounds which result in death—so-called shock. How far may these cases be protected by anticytost exhibition, by gradual increase for weeks or months? The question carries itself to malignancies particularly the so-called rapid cases, in which tissue destruction progresses so quickly that "shock" or death follows before sufficient anticytost is generated, in contradistruction of these slow cancer cases in which an apparent immunity is created and death is postponed or recovering follows. The subject opens a wide field for exploration, pleasing equally to the biologist and clinician. J. M. B.

EMILE COUE

(A Few Remarks, Pertinent or Impertinent)

THE "medical" stage is for all the world like the vaudeville stage. A ventriloquist or a sleight-of-hand performer—or a man comes out on roller skates. (My father, eighty-five, still thinks the contortionist doubles in other parts.)

The roller skate man entertains you for a moment and is gone. The tragedian if any stalks across the stage as advertised, in affected pose; some say, "wonderful"—but not the roller skate crowd! The soubrette if any flits upon the stage in tights or loose or none and makes a few racy cracks or sings a racy song and the audience roars (they tell me)—but not the tragedian's audience—it's a different crowd. And so, on the "medical" stage, about once a season some new "light" flashes, the papers boost, the public give up their good money, the regulars frown.

Does any good come from or result from these cults? Do they muddy the water or clarify the "atmosphere"?

You notice one thing, none of these great "world" movements functions very long without the approval of the American people and their money (sic). I am not saying they are not sincere, not able, not logical. "I ain't sayin' nothin', yet."

One writer says, "Coue is amazingly quick to recognize an appeal to individual qualities of personality." His lecture on the Psychology of

the Will and Imagination is clear cut, logical, intellectual. "His wit flashes and chuckles." He pleasantly and entertainingly unites "certain hypnotic influences with a purely intellectual appeal. Obviously this combination is as disarming to the intelligent observer as it is flattering and soothing to the sentimentalist." His, then, is a specialty act. Few men have come on the stage so gifted and like-minded. Probably few or none could fill his shoes. What, then, is the good or harm of such a movement? It makes us think. It makes good and frequent news. Let 'em rave.

Coue claims he has come to our shores to get us to introduce a program of auto-suggestion in our medical schools, and to have it practiced in prisons and houses of correction where he thinks it will cure criminal tendencies. Possibly we should do so. Let us investigate.

Monsieur Coue is recounted by his admirers as being rather cumulative of bon mots. He lectures with a cigarette in his lips and bubbles on forever. But do you not remember when the tragedian came heralded to your town and "stopped" at the "leading hotel" and while at breakfast something or nothing happened which angered him; and he threw his beefsteak at the waiter, stalked out, paid his bill and damages (or his "secretary" did) and it all "leaked" out and got into the papers some way and that night the theater was crowded? Why is that?

Now we read that while Coue is lecturing and holding his clinic, an artist—oh, very celebrated—is right there where all can see him modeling Coue in clay. Now why is that?

Coue says you forget a name because you exert your will to remember it. Whereas if you put aside all effort to remember it and let the subconscious mind have the job the name will return at once. (Now have not we doctors been sending to Will his old bill for years, and we can't remember it and the post office department won't give us the subconscious address?)

Coue is spoken of as a self-made man, with a sense of humor. He has taken a university course in natural science, and then pharmacy, and then to "practicing medicine in a most practical fashion." (Well, yes, that is not so new, either; it's the druggist's "we have something just as good.")

But one booster for Coue says that on account of this "over the counter" proficiency Coue is recognized in medical circles. (Well, as I say, my father in his second childhood thinks the actors double, in vaudeville.)

But it was in the drug store that Coue learned the trick of laughing at disease and curing it with large doses of applied imagination and constructive thinking," 'n' ev'rything. Well, where did he learn the trick of bringing it over to America? 'N'ev'rything.)

"Today he is a pharmacist at heart," says one writer, "though his practice now includes those with mental and moral troubles as well as physical ailments" 'n'ev'rything. (Well, father is right. "Yes, father, the tragedian is the same man now doing the roller skate turn. Ain't he funny now? My! Suppose he should fall?")

Coue says, "Imagination plays the supreme role in every function of life. That a prospective mother can not only determine the sex of her child by disciplining the imagination—exercising auto-suggestion—but in a large degree control its physical and moral characteristics, by depositing in her subconscious mind the image of the son or daughter she desires and the qualities she wishes the still unborn infant to possess. The result is assured." (The modern mother omits the "un," it seems, quite often.)

Coue says, in regard to training children, "Avoid talking ill of people in the child's presence." (That's fine!) "Answer their questions clearly and with good humor." "Above all, never on any account tell a child that he or she is a story-teller or lazy." Remember that such suggestions have a very strong tendency to become realities, just as the better kind of suggestions have. To a child inclined to be lazy say, "Well, you have done much better than usual today. I am pleased with your work. You are improving. It may not be true. No matter." (Now, what do you think of that? Tell a lie to impress a truth! Yes, father, that is the tragedian now doing the high and lofty tumbling.)

According to Coue's truth, think you are well and you will be; think you are sick, and you will be. Smiling makes you better, groaning makes you worse; thinking a better state improves you, feeling sorry for yourself sets you back. (Oh, very well! But you know Coue's is old stuff, and besides we have Mrs. Mary Baker Glover Patterson Eddy; 'n'ev'rything.)

H. N. J.

A REQUEST

Will the readers of The Medical Herald kindly assist? Recently I bought a large quotation book; there are several pages of quotations on "Medicine", nearly all of them must have been selected from the Christian Science sources (?) If the readers have any quotations on medicine, the old country doctor, the family physician, etc., and will put them on a postal card and forward to me we shall put the matter in its proper light.

Give the author and book if possible.

H. N. JENNETT, M. D.
3603 E. 9th St., Kansas City, Mo.

Notes on Pulmonary T. B.

¶ Acute Pulmonary Tuberculosis is also called Phythisis Florida, or Galloping consumption, and is still doing business at the old stand, active and quite chesty.

✣ ✣ ✣

¶ Roentgen examinations are helpful in skilled hands. They aid but little in differentiating between active and quiescent tuberculosis. Steroscopic plates are essential in early cases. Roentgenographic studies are useful in (1) determining accurately the extent of the T. B. process and (2) in detecting deep seated lesions when physical signs are indefinite or equivocal, and, according to Stevens, Practice of Medicine, 1922, "the early findings are haziness or fine mottling, corresponding to the affected area, more or less restriction of the movements of the diaphragm on the side of the lesion; and, especially in children, shadows, cast by swollen bronchial lymphnodes".

✣ ✣ ✣

The von Pirquet and Moro tests are not of great value in determining whether a T. B. process is active or inactive, and neither test is reliable after the second or third year of age.—Stevens.

✣ ✣ ✣

In all early cases of suspected T. B., running a slight daily temperature, teeth infections should be eliminated before a definite, final diagnosis is announced.

✣ ✣ ✣

There are no physical signs peculiar to pulmonary tuberculosis.—Stevens.

✣ ✣ ✣

It has long been observed that the T. B. case may fall under medical care first for "indigestion."

✣ ✣ ✣

Cog-wheel respiration is very likely to be due to nervousness, fatigue, thoracic pain as well as to T. B.

✣ ✣ ✣

Fine crackling rhales, after a forced or made-up cough, inspirational, apical, is one of the best tell-tale signs of beginning consumption.

✣ ✣ ✣

Were I the patient, I had rather a diagnosis of my incipient T. B. be arrived at by my general, composite clinical picture and history than that I be stigmatized from a single symptom, such as cough, or night sweat, or afternoon temperature, or rhales.

Tachycardia, loss of weight, sweating, possibly slight pyrexia are also symptoms of hyperthyroidism.

✣ ✣ ✣

Most authorities recognize that T. B. of the lungs is curable, and some state that possibly eighty per cent of all children have at one time or another had Pulmonary Tuberculosis.

✣ ✣ ✣

The unfavorable prognostic signs in an advanced case are high fever, very rapid pulse, troublesome digestive disturbance and loss of weight.

✣ ✣ ✣

The unfavorable age for recovery is in young children, and at 15 to 35 years.

✣ ✣ ✣

The average duration of life of a neglected case is about two years.

✣ ✣ ✣

A crop of scrofulous adenitis, a visitation of "idiopathic pleurisy," an unfashionable anal fistula, an unannounced and scarcely noticed otitis media, a spitting of blood apparently without due notice point strongly to T. B. unless proven innocent.

✣ ✣ ✣

The tubercle bacillus found in the sputum is its own confirmatory incriminating evidence, but that the tubercle has toured a long time before it is permitted to park on the cover glass

H. N. J.

CONCERNING THE DOCTOR

Dr. Floyd H. Spencer, president Medical Society of the Missouri Valley, accompanied by Mrs. Spencer, left St. Joseph June 10th for an extended western trip, including the Canadian Rockies, Yosemite Valley, and returning by the way of the Grand Canyon. Dr. and Mrs. Spencer will be located at the St. Francis Hotel during the meeting of the A. M. A. We understand that the doctor was also accompanied by his golf clubs.

Dr. Harry H. Bowing, president Western Electrotherapeutic Association, read a paper at the meeting of the Wyoming State Medical Society at Laramie, June 20th. Dr. Bowing was en route to San Francisco, where he attended the A. M. A., and auxiliary meetings.

Dr. T. Howard Plank of Chicago is attending the A. M. A. in San Francisco, and incidently looking after his estate in the Big Tree country, where he is erecting a bungalow retreat.

Dr. Charles Wood Fassett, secretary Missouri Valley and Western Electrotherapeutic Associations, accompanied by Mrs. Fassett, is attending the A. M. A. and will spend the greater portion of the summer in California. It is an open secret, however, that the A. M. A. was only an incident in the trip of Dr. and Mrs. Fassett to California, the outstanding attraction being a daughter and three grandchildren, who reside at San Mateo. Dr. Fassett's permanent address while in the West will be "Old Colony Club," Palace Hotel, San Francisco.

The Holy of Holies

OUR HOUSE IN ORDER

It is well sometimes that we know what the gossip of our neighborhood is "doing" to our fair name. Our critics point out our careless errors and help us to make improvements. Criticisms of our profession are appearing in various public prints. Here is one by Fred C. Kelly in the April Current History Magazine. Read 'em 'n' weep:

"How Specialists Exploit the Public.

"For a long time the cost of medical treatment, especially in the larger cities, notwithstanding the great oversupply of doctors, has become a serious problem for all except the very rich or the frankly poor—those who can pay modern high charges and those willing to accept charity. Development of the so-called group idea in medical treatment is partly responsible for the financial distress among the sick. By group medicine is meant the modern practice of self-styled specialists working in co-operation—either in a suite or in separate offices—each members of the group confining himself to one phase of diagnosis or treatment. Even though a man's only affliction is an ordinary cold, he has not positive assurance when he goes to a modern diagnostician that he may not be sent from one specialist to another for expensive blood tests, X-Ray examinations and what not, until his ailment becomes more vivid with each inspection. A charge of $30 for a blood test, or of $250 for a general examination by a group of specialists is by no means unusual. In the average illness most of this work by specialists is entirely unnecessary".

With the last statement I most heartily concur. With some of the rest we might have to "argufy."

When a hospital charges seventeen dollars for the accoutrements and services that embelish a tonsil case of 24 hour hospitalization, the public may have a hemorrhage over the house.

"I might add in closing" that I noticed in the papers the other day that a "wrecking" auto went out in the country seven miles, pulled a "foreign" auto out of the mud and charged the driver $65, which was an out-rage.

Maybe it was Kelly!

A negro piano tuner I know charges five dollars for setting a piano in order, which is a subject of discord.

The long distance telephone disorganization charges me thirty cents to call up my son at the state university, if I wait until after midnight and if I will talk to the first man who answers, and if I will not talk over five minutes, whereas if I put the call in for "person to person" it will cost me 85 cents. Whereas if the doctor makes a hurry call and the first man who answers the door says, "we have another doctor"—that is a case of disorder.

The old story is still going the rounds, of the farmer who asked the liveryman how much it would cost to drive the farmer home late one night—"$7.50." The doctor always charged the farmer $5 for making a call, so he had the doctor take him home saved $2.50. That was a horse on the doctor. Yet.

Mrs. Eddy's book, Key to the Scriptures, which sold for three dollars when books were cheap, and which Key had to be changed real often (at three dollars per volume) can now be had at 5, 6 and 7 dollars the volume. But the doctor never had a copyright on his stuff.

All of which means, in a manner of speaking, that the doctor will charge more when he gets his house in order,—he has not had time to figure out the things very well, but now that the matter has been mentioned, the fun is about to begin. O boy!

THE RACE IS TO THE SWIFT

The Practitioners still are alive, and 'tis said
They know all their stuff quite by heart.
And the X-ray men are radiant—O by Ned!
Their Science is chasing our Art.

The Pathologists have technic and to burn;
They have bugs all dressed up for the part;
And the course is all set for the heroic turn,
With Science a-chasing our Art.

The Cults sit up nights now broadcasting the "news,"
And cures that are curious—and tart.
The "spirit" of the times has some wonderful "brews,"
For Science in chasing our Art.

O Abrams has stuff that he can't understand;
De Kruif, he runs wild as a hart.
Arch publishers stagger—but the race is just grand
'N'ev'rything chasing our Art.

The Eddyites?—O they have ordered the band;
The "thought" has considerable start;
And they hold a ripe lily to thrust in our hand
When "Science" "passes out" our Art.

We cheer all and beckon and race 'em 'til dead;
We sprint right along, taking heart;
We've a "pain," we've a hunch, for we're three laps ahead
Of Science still chasing our Art.

H. N. J.

¶ Very rarely do we encounter stone formation primarily in the hepatic duct or in the liver itself. When bile flow is obstructed proximally to the cystic duct, the gall bladder and common duct are very small or even atrophic.

Barking Back

The cardial virtues of Hippocratic practice were: (1) The high conception as revealed in the Hippocratic oath. (2) Singular artistic skill with which he used what he had in his day. (3) A clear recognition of disease, and following with close observation its course and process of recovery. (4) In record and interpretation of symptoms. (5) The efficiency of his art when nature halts.

The father of medicine, Hippocrates, was a great clinical physician.

History teaches everywhere that permanent ignorance and superstition are the result of the oppression of mankind by fanatical overmen. In medicine this is sometimes ludicrously true. —Garrison, History of Med.

Mohammedans believe in all the prophets of the Bible—Noah, Abraham, Moses, Jesus, Mohammed!

Reminds a doctor of the cults legislating themselves into the fold.

John Wesley thought that his "Primitive Medicine" was the best of his many books. Nearly 100 years ago he published it and the following are taken from it: Carron oil (Lime water and "sweet" oil) for burns. A roll of white paper placed under the tongue (or lip) for nose bleed. The flannel binder for infant colic.

Wesley used about 160 drugs, 78 of which are still in the U. S. P. He said that nettles are good for "any old sore." The proverb, "Cleanliness is next to godliness," is his.

Progress?

Anent the mad rush in carting obstetrical cases to the hospital is set the very just criticism of Dr. Holmes of Chicago that hospitalization of such has not lessened infant and mother mortality in the last 100 years. For which there is applied this intended healing iodoform salve of Dr. Williams (J. Hopkins U.): "Laboratories for the anatomical, chemical, pathological and physiological investigation of gynecological and obstetrical problems."

'N'ev'rything.

'Tis er 'taint. The code of Medical Ethics is the most antiquated moss-covered, germ-ladened institution in the world.—R. S. Copeland.

If it is let's do something about it.

This writer was just wondering if the needs of medicine, to counteract the inroads of time and the cults and the socialists, and to appease the general criticism of a well informed public, to keep steadfastly before the public just what medicine claims to do and does,—the writer was just wondering if the needs of medicine could not be aided and abetted by running a helpful, ethical, instructive, live-wire publicity propaganda. Let's do it!

In our program of medical education the question is frequently (and pertinently) put: "Are we satisfying our obligations, in making standards for the exceptional instead of for the average student?"

Attention should be called to one of the features of the curriculum in the chiropractic schools, namely the large amount of time given to the pupils in that school in the art and method of advertising.—Article in Atlantic Monthly.

Not all the eccentric dancers are on the stage.—St. Joe Gazette.

No; now there's St. Vitus.

John Wesley said, "Electricity comes nearest an universal medicine of any yet known in the world."

WHY THE CULTS FLOURISH

Americans love bargains. The cults' system of treatment is cheaper than the M. D.'s. This makes the American tolerant and credulous with the cults and "he hopes to get as good an article for less money."

With their lack of restraining ethics the cults advertise and with propaganda catch the public ear and fancy.

Magazines and newspapers grab anything that has a semblance of medical news.

A PUZZLE

When one doctor doctors another doctor, does the doctor doing the doctoring doctor the other doctor like the doctor wants to be doctored, or does the doctor doing the doctoring doctor the other doctor like the doctor doing the doctoring wants to doctor the doctor?—The Medical Quip.

¶ Cultism is the sinister venom of present day care of the sick.

Are You a Member?



"Come with us and we will do thee good"

ORGANIZED at Council Bluffs, Iowa, September 27, 1888. Objects: "The objects of this society shall be to foster, advance and disseminate medical knowledge; to uphold and maintain the dignity of the profession; and to encourage social and harmonious relations within its ranks."—Constitution.

The Newly Organized Association

The Interstate Society of Radiology and Physiotherapy

C. L. MULLINS, President *ROLAND G. BREUER, Secretary*

will meet in conjunction with

The Medical Society of the Missouri Valley

Clinics Will Be Held on September 17 and 22

OMAHA, NEB., SEPTEMBER 18, 19, 20, 21, 1923

President
Floyd H. Spencer
St. Joseph, Mo.

Treasurer
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First Vice-President
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Secretary
Charles Wood Fassett
Kansas City

Second Vice-President
Palmer Findley
Omaha, Neb.

Chairman Arrangement Committee
J. Fred Langdon
Omaha

OFFICIAL CALL FOR PAPERS

The thirty-sixth annual meeting of the Medical Society of the Missouri Valley will be held in Omaha, Neb., September 20 and 21, in conjunction with the Interstate Society of Radiology and Physiotherapy, which will hold its sessions September 18 and 19. A joint get-acquainted dinner will be held by the two associations on Wednesday evening, when a number of men of national reputation will speak. All sessions will be at the Fontenelle Hotel, which will be headquarters for the members, The exhibit, which will be very elaborate and complete, will be located on the mezzanine floor. Members desiring to present papers will please send their titles to the secretary early; papers will be placed upon the program in the order in which your titles are received. Papers will be limited to twenty in number. Program will close August 15. Papers for the Interstate Society should be sent to Dr. Roland G. Breuer, 216 Security Mutual Bldg., Lincoln, Neb.

BUCHANAN COUNTY MEDICAL SOCIETY

The society met May 16, 1923, at the Commerce Club rooms, St. Joseph, Mo., with Dr. Beck in the chair. Scientific session.

Paper by Dr. H. K. Wallace, "Rupture of the Spleen, and Report of Two Unusual Cases."

Paper by Dr. Caryl Potter, "Review of Fifty Cases of Cancer of the Breast and Twenty Cases Precancer of the Breast."

Both papers were thoroughly discussed and the essayists were highly commended for the way in which their subjects were handled.

Report of the delegates from the State Society read by the secretary was accepted.

A motion by Dr. Potter, seconded by Dr. Forsen, that the chair appoint a committee of three to investigate and determine if possible, the number of copies of "Hygiea" in Buchanan County, with a view to stimulate the public in the reading of this magazine, which has to do with presenting medical subjects to the lay public. Motion carried and chair appointed Drs. Potter, Moore and Forsen.

A motion by Dr. Wallace, seconded by Dr. Reynolds, that the Buchanan County Medical Society go on record endorsing the school bond issue of three million dollars, and pledge its hearty support, and that the chair appoint a committee of three to assist the various civic committees of our city, whose duty it shall be to aid in the caring of the above

The following resolution was adopted by the Buchanan County Medical Society at its meeting May 16, 1923: "It shall be the sense of the society that Abrams' method of diagnosis is a fraud. Any physician practicing this method is incligible to membership. If a member, he shall immediately cease this method of practice or charges of unethical conduct shall be preferred against him."

Meeting adourned. There were twenty-five present. H. S. CONRAD, Secretary.

WESTERN ELECTROTHERAPEUTIC ASSOCIATION

Minutes of the Fifth Annual Meeting held in Kansas City, April 19-20, 1923.

The association was called to order at 10 o'clock Thursday morning at the Little Theatre by the president, Dr. T. Howard Plank.

Upon motion the reading of the minutes was suspended with the same having been published in full in the official journal. A communication was read from Dr. C. L. Mullin, Broken Bow, Neb., president of the Interstate Soliety of Radiology and Psysiotherapy, inviting the members to attend the meeting of his association in Omaha in September.

Upon motion the invitation was accepted and the suggestion made by Dr. Grover that we go to Omaha in September with a brass band.

On account of absentees, the president appointed Dr. W. P. Grimes to act with the Board of Trustees in passing upon the applications for membership.

Upon motion the by-laws were suspended, the chairman authorized to appoint a committee on nominations. The following named were appointed: Drs. B. B. Grover, A. D. Willmoth and J. P. Shumway.

The committee to report on Friday morning.

The secretary submitted his annual report as follows:

Secretary's Report

The last meeting of our association was held in Kansas City April 20-21, 1922, under the presidency of Dr. Curran Pope. An excellent program of 15 papers was disposed of. The annual dinner was held at the City Club on Thursday evening, at which time Dr. Pope made his presidential address on the "Weakness and Strength of Physio-Therapy." Dr. James T. Case of Battle Creek presented a paper on the "New Deep Roentgen Therapy," illustrated by lantern slides and Dr. H. H. Bowing of the Mayo Clinic illustrated the Roentgen Ray Therapy in medi-

cine. Twelve new members were added to the list at this meeting.

An effort was made at this meeting to change the name of our association to physio instead of electro, but the proposition was voted down. It may be that some better term will be invented for this method of treating diseases, but as yet we have not discovered it.

Our association has lost nine members during the past year by death two; Dr. J. N. Scott of Peabody, Kas., who was an honorary life member of our association. Dr. Scott was one of the pioneers in X-ray work and died a martyr to the cause on July 25, 1922. Dr. Albert H. Peters of Colorado Springs, Colo., died on August 2, 1922. The following members resigned: Drs. M. P. Springer, Tulsa, Okla.; Wm. R. Beatie, Springfield, Mo.; Felix Cohen, Coffeyville, Kas.; Edward A. Albers, Kansas City, Mo.; Frank L. Abbey, Newton, Kas.; Theo. F. Clark, Eldorado, Kas.; Charles Fox Gardiner, Colorado Springs, Colo.

The dues have been collected from members amounting to	$475.70
Paid out for supplies August 10, 1922	30.89
Balance on hand April 16, 1923	$444.81

We are making some progress and every day brings new converts into the fold of physiotherapy. An optimistic note has been sounded in California. The County Medical Society of Los Angeles recently organized a section of physiotherapy with 101 members. Drs. Grover and Morse were present at the birth of the new society. It is conceded that a section of Physiotherapy will be added to the California State Medical Society.

There has also been formed in Omaha the Interstate Society of Radiology and Physiotherapy, comprising the states of Kansas, Nebraska, Iowa and the Dakota. The secretary, Dr. Breuer, is with us today. This society holds its first annual meeting in September, at Omaha, in conjunction with the Medical Society of the Missouri Valley.

I wish to thank the officers and members for their kind co-operation.

CHAS. WOOD FASSETT, Sec'y.

Upon motion the reports were referred to the Board of Trustees for audit, Drs. W. P. Grimes and B. B. Grover.

Dr. Grover called the attention of the society to the fact that the secretary had now served for four years without compensation and moved that a salary of $100.00 per year be allowed for his services. Seconded and carried.

The scientific work of the association was then taken up and the following reports submitted:

"Static Currents," Drs. S. Grover Burnett and W. P. Grimes.

"Research," Dr. A. D. Willmoth.

"Radium," Dr. Sanford Withers.

"Roentgenology," Dr. H. H. Bowing.

The afternoon session:

The following papers were read and discussed in the scientific session:

"Physiotherapy, an Adjunct to Orthopedic Surgery," J. E. M. Thomson.

"Blood Pressure Interpretation," Dr. B. B. Grover.

"Diagnosis and Prognosis of Pulmonary Tuberculosis," Dr. J. D. Gibson.

"Rational Physiotherapy in the Treatment of Early Tuberculosis," Dr. Roland G. Breuer.

"Actinic Ray Therapy in Surgical and Gynecological Work," Dr. A. David Willmoth.

"Ultra-Violet Radiation and Mineral Metabolism," Dr. A. J. Pacini.

Evening session:

"Light as a Therapeutic Agent," Dr. J. W. Bolton.

"Restoration Ileocecal Incompetency," Dr. F. H. Morse.

Friday, April 20:

"High Frequency Currents." Dr. Frank C. Fuller and Dr. Joseph Waddington.

"The Fluroscopy of the Gastro-Intestinal Tract," Dr. E. H. Skinner.

"The Fundamental Principles of Radiation Therapy," Dr. Sanford Withers.

"Radium and Roentgen-Ray Therapy in the Treatment of Hodgkin's Disease," Dr. H. H. Bowing.

"The Biologic Effect of 200 K. V. Roentgen Ray as Compared With 130 K. V. Ray and Radium," Dr. R. W. Fouts.

The Board of Tustees reported favorably upon the following list of applicants:

W. H. Barton, Temple, Tex.; A. L. Berggren, Beverly, Kas.; C. H. Bellamy, Dallas, Tex.; C. M. Blair, Bartlett, Tex.; H. H. Bogle, Globe Building, Pittsburg, Kas.; Roland G. Breuer, Lincoln, Neb.; S. G. Burkholder, Reading, Pa.; Wm. F. Byler, Kansas City; M. Phillip Cannon, Chicago; Charles F. Clark, Kansas City; Paul F. Cope, Kansas City; Thomas J. Crowley, San Francisco; Fred E. Dillenbeck, El Dorado, Kas.; H. A. Dittmer, Manchester, Ia.; L. L. Doane, Butler, Pa.; A. J. Edstrom, Clyde, Kas.; F. T. Edgerly, Ottumwa, Ia.; S. Flatt, Independence, Kas.; Dr. C. O. Henry, Allentown, Pa.; F. H. Jenkins, Italy, Tex.; Miss Bessie Miller, Denver, Colo. (Asso.); Miss Louise L. Million, Louisville, Ky. (Asso.); J. G. Marron, Brainard, Neb.; Milo W. Moulton, Bellevue, Ia.; Claude D. Myers, Houston, Tex.; J. W. Neptune, Salina, Kas.; Edgar E. Poos, Belleville, Ill.; G. J. Russell, Kansas City, Kas.; M. R. Sathe, Estherville, Ia.; Don L. Smith, Wilsonville, Neb.; H. A. Spilman, Hofmann Building, Ottumwa, Ia.; Salvatore Scimeca, Kansas City; Miss Emma L. Stewart, Louisville, Ky. (Asso.); J. E. M. Thomson, Lincoln, Neb.; H. L. Walker, Aledo, Ill.; Sanford Withers, Denver, Colo.; G. A. Zerzan, Holyrood, Kas.

Upon motion, the by-laws were suspended and the thirty-seven applicants were admitted to membership in the association.

The auditing committee reported that the accounts of the secretary and treasurer were found correct.

The committee on nominations made its report as follows:

President—Dr. H. H. Bowing, Rochester, Minn.

First Vice-President—Dr. E. H. Skinner, Kansas City, Mo.

Second Vice-President—Dr. A. David Willmoth, Louisville, Ky.

Treasurer—Dr. W. P. Grimes, Kansas City, Mo.

Registrar—Dr. B. C. Harris, Sapulpa, Okla.

Board of Trustees: Drs. T. Howard Plank, Chicago, and B. B. Grover, Colorado Springs, Colo. The secretary is elected every three years.

Upon motion the report of the committee was accepted and the officers unanimously elected.

Proposed Amendment

Dr. J. W. Bolton proposed an amendment to the constitution XVII, to read, Kansas City shall be the permanent meeting place of this association.

Upon motion the secretary was instructed to see the owner of the Little Theatre in regard to eliminating the disturbing noise by inserting a partition in the opening between the assembly hall and the exhibit.

Addenda

Preceding the meeting of the association, the Western School of Electro-Therapy held an interesting session of three days, with a class of 100. This school has become an institution in Kansas City, and is growing in popularity and usefulness each year.

CHARLES WOOD FASSETT, M. D.,
Secretary.

Clinic Week in Kansas City
Medical Ass'n of the Southwest
October 8 to 13, 1923

MEDICAL ASSOCIATION OF THE SOUTHWEST—ADDITIONAL ANNOUNCEMENT

LAST month we gave biographical sketches upon several of the guests who will appear at the annual meeting of the Medical Association of the Southwest, in conjunction with the Kansas City Clinical Society, from October 8 to 13, 1923, at the Convention Hall in Kansas City, Mo.

This month we are very glad to give information upon the other distinguished guests who have accepted our invitation. It will be noted that the scope of medical interest displayed by this list of guests touches every specialty in medicine and at the combined efforts of these guests will give our visitors a wonderful resume of the progress of medicine in its entirety.

Doctor William David Haggard of Nashville, Tenn., is a surgeon of international reputation. A member of the American Surgical Association and an ex-Regent of the American College of Surgeons. He is an ex-President of the Southern Surgical Association. During the war he served as lieutenant-colonel with the Evacuation Hospital No. 1 at Toul, France, and as consultant in surgery at the Mesves Hospital Center near Nevers, France.

Doctor Reuben Peterson of Ann Arbor, Mich., is professor of obstetrics and diseases of women at the University of Michigan. He was president of the American Gynecological Society in 1911. He is the author of Peterson's Obstetrics which was published in 1907 and has been a frequent contributor of articles on medical topics. Of late he has attracted unusual attention to his original efforts in the radiographic demonstration of the pelvic organs with the assistance of the X-ray and the instillation of oxygen or carbon dioxide through the uterus. He will address a combined group of radiologists, gynecologists and obstetricians on Monday evening and on Tuesday he will appear before the entire group of visitors at Convention Hall.

Doctor Francis Marion Pottenger of Monrovia, Calif., is an international authority upon tuberculosis and climatology. He is well known throughout America and has been a frequent visitor to medical societies where he has always made valuable contributions to medicine. He is the author of Pulmonary Tuberculosis, 1908; Muscle Spasm and Degeneration in Intrathoracic Inflammation and Light Touch Palpation, 1912; Tuberculin in Diagnosis and Treatment, 1913; Clinical Tuberculosis, 2 volumes, 1917; Symptoms of Visceral Disease, 1919; Tuberculosis and How to Combat It, 1921. He lives in Pasadena, Calif.

Doctor Frederick Tilney of New York City is a neurologist of eminence. He is professor of neurology at the College of Physicians and Surgeons, Columbia University, New York. He has contributed extensively to the medical literature of his neurologic specialty.

Next month we will conclude our biographical sketches of the distinguished guests. We believe that **never before in the history of Medical Societies has such a distinguished group of guests been presented to a medical audience.** One hour's time will be given to each of these guests. If they desire discussion, it will be necessary for them to close earlier so as to permit the hour's time to fulfill the necessity of the presentation. We have fifteen of these distinguished guests, five of whom will appear upon Tuesday, Wednesday and Thursday at the Convention Hall in Kansas City, Mo. **The dates of this meeting are October 8 to 13.**

On Monday the 8th there will be sectional meetings of the specialties with clinics at the hospitals in Greater Kansas City and a Round Table luncheon at the various clubs. Round Trip expeditions will be made to the laboratories of the hospitals during the morning and to the private laboratories of Kansas City specialists in the afternoon. On Friday and Saturday other specialties will hold forth with special clinics, round table discussions and sectional meetings.

Kansas City expects at least 2,500 visitors to this meeting. Every effort is being made to organize the meeting in such a way that every individual visitor will have an opportunity of seeing and hearing just as much and more that he wants to. Very little attention will be paid to the disposal of the evening's time so that there will be ample opportunity for recreation, theaters and visiting.

Physicians desiring to keep in touch with the plans of this clinical week, should send their names to the executive secretary, Miss Howard, 400 Rialto building, Kansas City, Mo. Programs are now in preparation.

NEW OFFICERS

At the thirty-first annual meeting of the Oklahoma State Medical Association in Tulsa, May 15-17, the following officers were elected for the ensuing year: President, Dr. Everett S. Lain, Oklahoma City; vice-presidents, Drs. Charles H. Ball, Tulsa; Abraham L. Blesh, Oklahoma City, and George S. Baxter, Shawnee; secretary-treasurer and editor of the Journal of the Oklahoma State Medical Association, Dr. Claude A. Thompson, Muskogee.

TO YOU

When I shall fall asleep tonight
A dream will come to me:
Your eyes look deep into my eyes,
Your wistful smile I'll see.

But in the flaming dawn I'll wake
To re-created loss
And don again my crown of thorns;
Take up my heavy cross.

—Whitelaw Saunders.

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

DISEASES OF THE THYROID GLAND

By Arthur E. Hertzler, M. D., F. A. C. S. Professor of Surgery in the University of Kansas School of Medicine. With a chapter on Hospital Management of Goiter Patients by Victor E. Chesky, A. B., M. D. One hundred and six original illustrations. St. Louis, C. V. Mosby Company, 1922. Price $5.00.

The reputation of the author as a surgeon and pathologist, and his lofty aspect as an authority on tumors, will guarantee a warm reception of this new work by the medical profession at home and abroad. The work represents deductions made from observations and study of specimens following operations, comparing the same with the clinical symptoms. The study has developed convincing evidence that the activity of the interstitial cells is associated with a definite clinical type of thyroid intoxication. Statistics have been designedly avoided as being misleading, when the subsequent life history, which is so necessary, cannot be followed. The author's presentation is most complete and thorough; is essentially first handed from the viewpoint of symptomatology operation, microscopic investigation and immediate subsequent status.

Etiology and pathogenesis, normal and pathologic anatomy, symptoms, diagnosis, prognosis, treatment, surgery and hospital management are each in turn specifically detailed, so clearly so that nothing has been neglected in making the volume most welcome to any man in the profession. The numerous illustrations, 106, add vastly to the value of the work equally to the internist and to the surgeon.

CLINICAL LABORATORY METHODS

By Russell Landram Haden, M. A., M. D., Associate Professor of Medicine, University of Kansas, with sixty-nine illustrations and five color plates. St. Louis, C. V. Mosby Company, 1923. Price $3.75.

In a single volume Dr. Haden has given the profession a guide which every progressive member will want to keep on his table within reach. Not that every doctor will attempt to solve his pathologic problems by it, because he has gone beyond the laboratory equipment of most of us. But like the well-to-do housekeeper, if it is not done personally the knowledge of how it should be done and can be done is at hand. The intimate familiarity with chemistry manifested indicates that the author has at one time taught the subject. The volume presents all the doctor needs to assist in arriving at a proper diagnosis from a laboratory standpoint and makes one realize the value of the test tube and microscope in prosecuting a successful medical career. The subjects treated include urinequantitative and qualitative, gastric juice, sputum, feces, blood, milk, water, serology, as well as preparations of solutions, stains, media, miscellaneous chemical procedures and histologic technic. A pronounced charm of the work is the selection of one tried, and workable and satisfactory procedure, one that can be depended upon to give real information. Every doctor should do some laboratory work himself or have it done in the office. It gives an element of assurance to the man and to the patient,. While the scope of the work reaches beyond even the best educated fellow in the profession as regards details, the possession of the work will save time and money from the professional pathologist and result in greater positiveness to the doctor in daily routine work. The

The Management of an Infant's Diet

Diarrhea

The importance of nourishment in intestinal disturbances that are so common during the warm weather is now recognized by physicians, and it is also appreciated that the nutrition furnished must be somewhat different than the milk modification usually supplied to the normal infant.

Food elements that seem to be particularly well adapted, mixtures that are suitable to meet the usual conditions, and the general management of the diet, are described in our pamphlet—"The Feeding of Infants in Diarrhea"—a copy of which will be sent to any physician who desires to become familiar with a rational procedure in summer diarrhea.

Mellin's Food Company, Boston, Mass.

ge number of cuts, diagrams and tables increase the lue of the work materially, particularly the colored ites of blood work. The volume is commended to edical men, young and old.

SEXUAL IMPOTENCE—ROBINSON

practical treatise on the causes, symptoms and atment of sexual impotence and other sexual disders in men and women. By William J. Robinson, D. Eleventh edition, revised and enlarged, 502 ges. Illustrated. Price $5.00. Critic and Guide ompany, 12 Morris Park W., New York.

When an author of many books makes the statent in each one of them that, "No book has a right exist which has not for its purpose the betterment mankind by affording either useful information or althful recreation," you may expect something ique in his book. Robinson does not disappoint u. He says in his book, as in "Critic and Guide," at he thinks and what he knows, and of sexual imtence his is doubtless the last word. The work is uch broader than its title implies; for it covers the hole field: Masturbation, Pollution, Sexual Imponce, Sexual Neurasthenia, Sterility, Perversions, atest Treatments, Reports of Cases, Polemical oints, Prescriptions, etc., etc. On these and allied bjects Dr. Robinson has written authoritatively for ars.

HE RIDDLE OF THE RHINE: CHEMICAL STRATEGY IN PEACE AND WAR

An Account of the Critical Struggle for Power id for the Decisive War Initiative. The Campaign ostered by the great Rhine Factories and the Pressg Problems which they Represent. A Matter of re-eminent Public Interest Concerning the Sincerity of Disarmament the Future of Warfare and the Stability of Peace: By Victor Lefebure, officer of the order of the British Empire (Mil.), Chevalier de la Legion d' Honneur, Officer of the Crown of Italy, Fellow of the Chemical Society. Preface by Marshal Foch. Introduction by Field Marshal Sir Henry Wilson, Bart, Chief of the Imperial Staff. 282 pages, cloth. Illustrated. E. P. Dutton & Co., 1923.

This might be termed the Chemistry of the War. The author, scientist and engineer, was in the chemical warfare service throughout the war. After the war he visited the German chemical factories. He presented his findings before the peace delegates. The book should be of great interest to all peace loving citizens. The author is bold and fearless in his statements and their truth is vouched for by men of high rank. The message is clear and of vital importance to America. H. N. J.

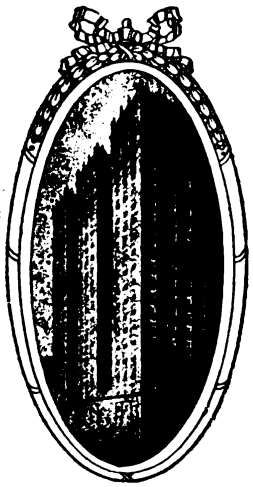
NURSERY GUIDE FOR MOTHERS AND NURSES

By Louis W. Sauer, M. A., M. D. Senior Attending Pediatrician, Evanston Hospital, Chicago. 188 pages, illustrated. C. V. Mosby Co., St. Louis, 1923. Price $1.75.

This book takes up the special consideration of the care, nourishment and the ills of infants, and not as so many books of similar title include children and adults. Doctor Sauer handles his subject in a very painstaking and creditable manner.

NOTE.—The Medical Herald's Kansas City office will supply any book reviewed in this department at publisher's price, prepaid. We can also supply any book by any publisher in the world. If an order for two books be sent at any one time, the purchaser will be entitled to a six months' subscription to the Herald.

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INCREASE OF PHAGOCYTOSIS IN SYSTEMIC INFECTIONS

With many physicians a definite purpose in systemic infections has been to increase the phagocytic power of the blood stream. Through this increase of phagocytosis the system is enabled the better to take care of infection—such as typhoid, erysipelas, sepsis, etc. It has been found clinically that the administration of Ecthol (Battle) possesses this power of increasing the phagocytic properties of the blood stream. Since Ecthol (Battle. has this property then its use in systemic infections is a logical procedure.

LOESER STANDARDS

The progressive tendency of medicine is well illustrated in the increasing employment of intravenous therapy. But a few years ago it was regarded as a hospital procedure, and limited in practice. The present status of intravenous medication indicates that practical and successful demonstration has dissipated much of the prejudice and objections that were raised to its adoption. The greatest factor in demonstrating the practicability and safety of intravenous injection was the widespread employment of Loeser's Intravenous Solutions. To accomplish this demonstration of safety and practicability, the founder of these solutions established new and higher standards of purity, accuracy and uniformity. That these standards are recognized is evidenced by the action of the authorities soliciting the advertising of Loeser's Intravenous Solutions for the official state medical journals, and other high class mediums.

MORE THAN A MILLION

About 1 per cent of the population of the United States is susceptible to Hay Fever. The result is that each year, during some period from early spring to late fall, more than a million persons suffer from this disease. The ones who suffer are those who, for some unknown reason, are over-sensitive to poliens, and the symptoms make the victim truly miserable. One of the important contributions of the medical profession to humanity during the last decade has been the knowledge regarding the cause of Hay Fever which, in turn, led to the development of a desensitizing treatment which has proved very helpful. In fact, the results from this desensitizing treatment show that the patient has about three chances out of four of being benefited. The desensitizing treatment is usually begun four to eight weeks before symptoms are expected to appear, and the treatment usually consists of 15 or more doses, of gradually increasing strength. One of the most convenient and satisfactory methods of treatment is that sup-



plied by the Mulford Laboratories. They put out a regular 15-dose treatment, each dose being contained in a separate Hypo-Unit. The Hypo-Unit is a collapsible tube container which is used but once, then thrown away, thus providing an individual syringe for each patient—a factor of refinement, safety and convenience, that is appreciated by patient and physician alike.

NOT A PANACEA

Burnham's Soluble Iodine is not a panacea, or anything of the sort; but whenever there is a condition which is caused by a derangement or disorder of the physiologic forces, or of the functions of the system, or when there is a condition which results from such a perversion of the physiologic processes, no matter what it may be, or what the disease may be named, this product is indicated, and its exhibition is attended with beneficial results. Such derangement is due primarily to disturbance of cell activity, and the effect consists of a pronounced alteration of cellular activity. When we remember the famous dictum of Virchow that the body is a collection of cells, and all treatment of disease must be directed toward the individual cells, and when we recall Schuessler's discovery that the cells contain certain inorganic salts, the lack of any one of which, or the disturbance of any of their functions, causes disease, it is patent that in the economy of the working cells such a product, stored in the body, must be of notable importance in restoring any disturbed cell activities. The French medical aothorities declare that soldiers who were gassed in the World War **"were injured, to some extent, in every cell in the system"** and that **"the cells thus injured are deprived of their cell salts."** With this in consideration, it is worthy of particular attention that Burnham's Soluble Iodine is proving of most excellent work in the treatment of the disorders due directly or indirectly to inactivity of the cells and glands. It should be obvious as to the indication and application.

PERALGA

A highly potentiated non-narcotic analgesic and sedative synthetic, introduced about a year ago by Schering & Glatz, Inc., of New York, has been received with considerable interest by the American medical profession. It appears that the favorable conclusions which European authorities have drawn from their thorough investigations of Peralga are being confirmed in the United States. Peralga, known in Europe as "Veramon," qualifies readily as a complete, or partial substitute for morphine and other opiates as a pain-relieving drug, and is being prescribed with success in headaches (habitual, menstrual, climacteric, etc.), pains of difficult menstruation, traumatic and surgical wounds, locomotor ataxia, acute gall-stone attack, breasts of nursing mothers, sleeplessness due to pain, drug withdrawal cures. Peralga Tablets are furnished in tins of twelve, and bottles of one hundred; Peralga Powder, in half-ounce and one ounce bottles. Full information, and a complimentary tin of Peralga Tablets will be mailed by Schering & Glatz, Inc., 150 Maiden Lane, New York, to physicians requesting the same on their stationery.

WHY THE INDICATED REMEDIES SOMETIMES FAIL

In chronic cases acidosis is often at the bottom of the trouble. The indicated remedies are likely to fail if this fact is ignored. The wise physician will inquire, therefore, if acidosis is present. And if present, he will take steps to dispose of it prior to or

When A Tonic Is Needed

and the functions of the body are depressed and deficient, what restorative or reconstructive do you know of that will do more for the weak and debilitated than

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conjointly with other treatment. He can do this by putting his patient on a course of Sodoxylin, a combination of sodium sulphocarbolate, colchicine, juglandoid, xanthoxyleid, etc., in grandular form. We know of nothing surer, in these unresponsive cases. Sodoxylin seldom disappoints in gastric acidity and heartburn. It is excellent, too, for alkalinizing the urine. It affords symptomatic relief in diabetes and in acute nephritis. Like so many other excellent things, Sodoxylin comes from The Abbott Laboratories, Chicago.

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Nature has no need for adulterations nor imitations, for from her vast stores of the primary elements she combines the pure and the true, and none of her products have ever been perfectly duplicated. Men have spent their lives in trying to make gold and silver and other precious metals, but all have failed; so it is with the salines—man has tried, but failed to duplicate the original. * * * The chemistry, as revealed by exhaustive analysis by such eminent chemists and scientists as the late Dr. Albert B. Prescott of the University of Michigan, and Dr. E. H. S. Bailey of the University of Kansas, seems to warrant our claim that AbilenA Water contains more cathartic salts in perfect solution than is found in any other known natural water in the world.

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¶ The coalescence of numerous diverticula with the associated inflamatory thickening, at times gives rise to surprisingly large tumors.

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MEDICINE—SURGERY—PHYSIOTHERAPY—X-RAY

Published Monthly at 115 East Thirty-first Street, Kansas City, Mo.

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Continuing the Medical Fortnightly and Laboratory News

The Medical Herald
and Electro-Therapist
Incorporating
The Kansas City Medical Index-Lancet
An Independent Monthly Magazine

Vol. XLII AUGUST, 1923 No. 8

Original Contributions
[EXCLUSIVELY FOR THE MEDICAL HERALD.]

REPORT ON MEDICAL HYDROLOGY

By CURRAN POPE, M. D.,
Louisville, Ky.
Medical Director, The Pope Sanatorium, and Neurologist to St. Anthony's Hospital

SINCE my last report there has been some notable advances in this domain of physical therapeutics. Hydrotherapy, although available to the practitioner in the humblest cottage, or the latest and best equipped sanarium, is but little used, and this I say to your shame. I really believe that it is either the last thing thought of, or what is most usual, never thought of at all, when its field of usefulness, and its ability to relieve is far beyond any methods daily employed. In a symposium on physical methods of therapy to be published by the New York Medical Journal, I was chosen to present this form of therapy, and among many other things I say:

General medical practice is a very broad field. If I were placed in the position of having to choose one single modality to meet the exigencies of daily practice in the acute and chronic disorders and diseases of which human organism is afflicted, I would choose water as my weapon. No single drug, chemical, serum, vaccine, anti-toxin possesses such value. No known hygienic or sanitary measure outstrips it. No physical modality can come within striking distance of this wonderful, flexible and powerful remedial measure. Internally and externally, it possesses effective values. It is the most valuable, in my humble opinion, of all physical measures of treatment, being usually useful in acute diseases and chronic states. It can be adopted to almost any ailment, and any human being, no matter how strong, or how weak; when the handmaiden of intelligent medicine discerningly and scientifically applies it. Its results are more certain than ninety out of every hundred therapeutic drugs employed by the practitioner. In spite of these facts, attested not by a few years of medical practice, but by centuries of accumulated experence and clinical knowledge, we find that the great centers of medical investigation, the foundations, the laboratory worker passes hydrotherapy by or treats it with the stern contempt, and cold disapprobation of the medical step-child, and refuses or overlooks its vast value, and spends hours, days, months and years on the study of some chemical, some serum, some vaccine or micro-organism whose field as compared to hydrotherapy, is as that of the atom to the worldly cosmos. This is not said to belittle any work of this kind, for EVERY attempt to find any measure or means to combat disease, prevent death, lengthen the span of human life, and contribute to that constitutional right the pursuit of happiness, even though it be an **ignus fatuus.** But why pass by this ancient and glorious therapy, hoary with the accumulated clinical experience of past and present? Why not subject it to the modern laboratory study that its importance demands? Clinical truths and clinical success demand experimental and scientific verification of these facts, under the laboratory scalpel of the cold and cynical worker of today, freed from the enthusiasms of therapeutic success. The laborer in the vineyard and the worker in the field of hydrotherapy KNOW its value, and KNOW what it will do, but they would like a scientific explanation, clean-cut, definite and up-to-the-minute, of the WHY and wherefore of this wonderful remedy. And its field of usefulness in medicine and therapy is but one phase or fact of its many possibilities. Its daily use is a preventive of disease, a sanitary measure of no small value, and it forms a corollary to athletics of real importance. Everywhere we turn we find use for water. From its cleanly and humble use in the culinary department, to its internal use by the direction

Read before the Western Electrotherapeutic Association, Kansas City, April 20, 1923.

of the physician, it is indispensible. It is the safest, best and one of the most effective cleansing agents used by moderns to cleanse highways and byways, the alleys and the streets of great cities, and little towns. It cleanses the air and makes the land fruitful and crops plentiful. On its placid or tumultuous bosom commerce moves. In turbulance it hurls itself from cliff to valley and delights the eye and soul of man. There are few indeed that do not "love" to view those beauties of nature in which water takes a not inconspicuous part. Oh! ye right reverends, and ye wrong reverends of the experimental laboratory, remember that this lusty little Joe, needs your help, but even lusty individuals may suffer, may pine, may die. The time is ripe for your investigation. Water is cheap. It costs less in municipalities than any other necessity demanded by the growing needs of the people of today. It is found in the cottage and in gilded palace, and bubbles forth in the spring-house of the farmer, or gurgles from the hill amid its green and leafy bower, amid moss and maiden-hair fern.

That the large medical journals are publishing such "stuff" speaks volumes for these measures.

Another notable advance of the past year was the foundation and publication of a new journal, devoted exclusively to hydrology, and of which I am pleased to be an associate editor. This London publication is entitled the "Archives of Medical Hydrology", and is the journal of the International Society of Medical Hydrology, with editors and distinguished members all over the world. It is under the able management and editorship-in-chief of Dr. R. Fortesque Fox, of London. It will represent the last words on Hydrology the world over.

A pleasing change from the time honored custom of experimental testing of drug and chemical substances only, is to be found in the publication in the Journal of the American Medical Association of the recent studies of Ralph Pemberton and Caroline Y. Crouter, on "The Response to the Therapeutic Application of External Heat," working in the Laboratory of Clinical Chemistry, at the Presbyterian Hospital, Philadelphia. The article is thoroughly scientific and of such importance as to justify careful perusal of all our members We have had to depend too much upon empiric and clinical physiology and pathology, instead of actual experimental and control laboratory tests by modern methods. It is gratifying that this great medical journal of our profession is publishing this data, and we only hope that its pages will always be open to such articles as treat of modalities outside the usual therapy. This Journal has during the past year, and on a number of previous occasions published excellent articles on the sanitation and purification of swimming pools and bathing beaches.

Taylor (H. M., Southern Med. Jour. Feb. 1923) calls attention to aural infections and conditions resulting from pool and sea bathing. He suggests baring all cases of skin disease; a shower bath before entering the pool: the evacuation of bladder (and bowel if necessary); the forbidding of expectoration and the blowing of the nose in the pool, and allowing only bathers on the floor surrounding the pool. Sanitary control and proper and efficient supervision of bathing pools are of vital public health significance. He calls attention to the contamination of bathing beaches, both fresh and salt, by sewerage, thus becoming a center for aural, nasal and sinus (and incidentally other) infections. He especially mentions furunculosis, otitis media and frontal sinus infection. Your chairman writes feeling on this subject, having been a victim of pool infection several years ago. Some of these infections are of virulent type. He suggest rigid supervision of bathing places by public health authorities, and an education of the public as to prophylactic care of nose and ears. How many times do sanitary inspectors REALLY examine, test and supervise pools and the beaches of our large cities, where bathing in the summer season should be encouraged? We fear that there are few that do, and fewer that are competent.

From Brussels comes the report (Jour. A. M. A., March 31, 1923, Vol. 80—No. 13—Page 937) that until such time as regular instruction in medical hydrology can be provided in their universities, the Societe Belge d'Hydrologie et de Climatologie Medicales is about to establish special courses, which will begin soon in Brussels (the definite time will be announced later). Dr. Terwagne will open the course of instruction and will give three lectures on thalassotherapy. Dr. Wybauw will give nine lectures on hydrotherapy. A second course has been planned, for which Dr. Moreau has already been engaged.

Good Health has during the year published many excellent articles of semi-medical, semi-lay character on water drinking, swimming, bathing, etc., all of which are in the right line.

Sampson (C. M.; Amer. Jour. of Electrotherapeutics & Radiology) has in a brief summary called attention to the value of the Whirlpool Bath, for the treatment of diseases and disorders in the arms and legs. He says it is to be used to relieve pain, hyperesthesias, improve local circulation, relax spasm and soften parts as a preliminary to massage and manipulation

Sluggish open wounds on these extremities are no contra-indication for the use of the whirlpool. It has been repeatedly demonstrated that these sluggish processes improve faster under the whirlpool than without it. The action of the whirlpool is a combination of that of conductive heat, and the most gentle massage, due to the whirling water. Parts so sensitive that massage is not possible, may be placed in the state where massage is possible and beneficial by the whirlpool and massage of a limb, can be carried further with benefit after a whirlpool than would be the case without the whirlpool. He also speaks highly of the value of the stimuli of tonic (cold) hydrotherapy and of the continuous bath. My growing experience with this form of bath makes me believe that the above is a very conservative estimate of the whirlpool's value, in fact, it is one of those measures that will remain (in my opinion) as a PERMANENT addition to our armementarium, hydrologically speaking.

Mac Millan (J. W., Jour. A. M. A.) says that he has used two excellent hydrotherapeutic measures to abort a "common cold," a bath old and well known, rarely used, but none the less efficient. They are (1) a short cold foot bath, (2) a longer hot foot and leg bath. He also suggests STRENUOUS exercise in the open air until all the "stuffiness" of a "cold in the head" has disappeared.

Siebeck (R. Klinishe Wochenscrift, Dec. 9, 1922, Vol. 1—No. 50—Page 2461) and Oehme (C Same Journal, Jan. 1, 1923, Vol. 2—No. 1—Page 1) have studied water metabolism. The exchange of water between the blood and tissues depends upon three components; (1) the blood; (2) the endothelium of the vessels and (3) the tissues. "There is no question about the existence of diffusion in living bodies, but the point to be studied is the regulation and coordination of this diffusion. Siebeck considered erythrocytes as a good object for such study, and found a very constant relation (1:2) of chlorides between erythrocytes and serum. According to Warburg, narcotics of the aliphatic series inhibit the diffusion of chlorids from the corpuscles, when applied in concentrations in which they inhibit oxidations. Reactions to the surface tension were also distinct, and Siebeck concludes that diffusion is regulated by the dispersity of protoplasmic surfaces, which can be changed by surface-active substances. Such a physical coordination is not limited to single points, but affects the whole organism. The question whether the regulation of water is renal or extrarenal, is wrong; both factors are important, and the main point is the coordination of the whole organism.

We do not know much about the influence of hormones on the central nervous system, but pituitary extract influences diuresis even after destruction of the nerves of the kidneys. No definite proofs were given that the condition of the blood colloids changes in diuresis due to caffein. Comparison of the refraction and viscosity of serum, which should show the alleged changes in dispersion of colloids, had negative results. It is more probable that the changes occur in the colloids of the organs themselves—kidneys as well as tissues. The tendency of the organism is to develop ontogenetically and phylogenetically toward constancy of blood composition and changes of concentration in the cells. These cause the movement of substances into them and from them. The regulation is perfected by especially sensitive cells of the central nervous system. It is probable that, in cases of diabetes insipidus in which changes were observed only in the pituitary gland, the authors omitted to examine the tuber and the paraventricular nuclei of the brain".—(Abstracted in the Journal of the A. M. A.)

And the lay journals have been giving quite a good deal of attention to the "bathing" problem. That progressive weekly, "The Literary Digest," has on several occasions, considered the bath and the bath tub. Both articles were interestingly illustrated by pictures of the continuous bath at Leukerbad (see Pope's Practical Hydrotherapy) and the street showers installed during a terrific hot spell in July in New York City. The populace would be greatly benefitted, and many lives saved if this plan was more often followed in large cities during a period of sweltering heat.

Of the fad of "radio-active" mineral spring water, the less said the better. Lithia, utterly useless and valueless in the quantities of mineral water drunk has "passed" on, and the spot light is now flashed on anything that contains the mystic and magic word "radio". The main value therapeutically of the "radio", in the average mineral water, that is on the market, lies in the printed advertisement of such mineral spas, foreign and domestic; the physician should remember that a medical sucor is born every minute.

The newspapers have had any number of articles from our good old friend, Doctor Brady, and taking them "all in all" they are very fair presentations of phases of hydrology, of which they treat. There is no question but what a man like Dr. Brady reaches an audience running into the hundreds of thousands. We cannot, however, agree with the genial "Doc" about the cold bath or shower being merely a mental discipline. That

this is a mistake is shown by constant daily experience. A former heavy-weight boxing champion of the world (and also several lesser lights) have told me that the cold shower was one of the best methods to take the tenderness out of a man in training. We will admit that the public, as a rule, is normally shy—we wanted to say cowardly, but hated to do so—when it comes to cold water, and these persons gain mental discipline from the bath. But Doctor Brady seems unaware of the fact that Mosso and Veneij, and Maggiora have shown by the use of Mosso's Ergograph that a cold shower adds 33 1-3% muscular power to the individual. Ask any trainer, sensible fighter or athlete if they would permit their proteges, or themselves to enter contests without the invariable cold shower and rub down. Sit by the ringside and note when a "pug" weakens, or is mentally dazed, what his backers and trainers do. They will rub him with a COLD wet towels or put ICE to the nape of his neck and up and down his spine. He thus gains more physical stamina and is rendered more alert mentally. We have no crow to pick with the Doctor, but hope he will next time revise and revamp his communications on the cold bath. He serves medicine well, but we would like him to change in this particular.

CHAIRMAN'S ADDRESS

By H. MOULTON, M. D.,
Fort Smith, Ark.

THIS gathering of representative men in our specialties affords a favorable opportunity for inquiry into present day conditions governing our work.

As time goes on we find that each generation makes demands on its workers in every line, varying from those of previous generations. A little reflection shows that this is true as applied to us.

The demands made upon us come from two great sources: The Public for one and the General Medical Profession for the other. The demands are practically identical from the two sources and are:—that we possess evidence of ability to do our work; that we make accurate diagnoses and that we cure disease. On the part of the public the demand for **cure** is the most important. On the part of the profession the demand for **diagnosis** is the greater. The demand for preparation and equipment is equal from the two sources. These fundamental demands have existed since specialties in medicine were recognized. They exist today, unchanged. But as medical science progresses and our work improves there is a broadening demand on us for other things than the diagnosis and cure of diseases of the particular organ or organs originally included in our specialty.

Time was when the ophthalmologist was expected only to diagnose and treat disorders of the eye. He was expected to cure all sore eyes, correct anomalies of refraction, remove impediments to vision and operate for squint. That was about all. Indeed, to do these things properly he needed to have a broad medical knowledge in order that he might discover and remove the underlying cause of the disorder he was called upon to treat.

But for a long time ophthalmologists have had the experience that often an eye examination would bring to light some other hitherto unsuspected general or local disease of vastly more significance to the patient than the local disorder for which he sought relief. Instances are, Brights disease, tabes, arterio-sclerosis, brain tumors, etc. For a long time opthalmologists through society meetings and journals have been placing evidence of these things before the profession without apparently exciting proper interest. Some general practitioners seemed even to resent, that an eye specialist should diagnose intra cranial pressure on finding a choked disc or suggest nephritis after a retinal examination. But last, in modern times with a broadening of general information and the recognition of the value of co-operative work in the profession it has come to pass that the aid of the opthalmologist is sought more and more in general diagnosis. The practitioner and surgeon refer many cases with or without obvious ocular symptons, for the information the oculist alone can give. Even many patients who are not referred are demanding after an eye examination, if any other trouble has been revealed. This demand is not only increasing our work in the office, but it is requiring, in turn, an increase in work done in our study and laboratory. To furnish the information desired the opthalmogist must possess not only the greatest knowledge possible of the human eye, but also of the entire human organism. This broad information desirable as it always has been, is now of magnified importance. For instance, if the cause and cure of a headache is being sought, the oculist must not only know how to recognize and correct errors of refraction, but he must also know of the different conditions likely to produce headache and recognize the one which may be present in the case in question. Otherwise, he is likely to fall into many errors.

This same broadening scope is found in Rhinology and Laryngology. In many refle

Read before the section on Disease of the Eye, Ear, Nose and Throat of the Medical Association of the Southwest at Hot Springs, Ark., 1922.

nptoms the rhinologist is consulted. The hthalmologist calls on him in certain optic rve diseases, so that these two specialties wadays are almost inseparable. Since the itter of focal infection has attained such a gree of magnitude, a vast change has occrred in Rhinology and Laryngology. The ecialist in these branches, formerly had only decide whether the nasal function would be proved by removing a turbinate or opening sinus, or whether the throat would be benefited by cutting off a tonsil. But now he must cide whether the general health will also improved by such operations. His decision ist rest not only on his estimate of the local ndition but also, and sometimes solely, on e general condition. To be competent in is field his knowledge of general disorders nich may depend on the local disorder as a use must be profound and complete. It s happened that tonsillectomy has been ne to cure what afterwards proved to be the ins of tabes. Enough said.

So also, we find the same facts true in thology. The Othologist formerly was excted only to stop running ears and cure afness. Later he began to do mastoid surry. Today a competent otologist must be brain surgeon as well. Note our current literature. How vast is the proportion of reorts in which othologists open the brain tvity. How fine must be the technique for ich operations. How comprehensive should e the surgeons knowledge of the structures volved! The otologist too is being daily alled upon to elucidate obscure points in the iagnosis of other diseases. The ear is recogized as often the source of focal infection. ts condition often throws light on the origin f a vertigo and of many other troubles.

It is not necessary here to detail particular ases wherein the specialist has been useful o the practioner and patient in the manner ere referred to. The point is that the specilies of eye, ear, nose and throat here represented, are not becoming more and more isoated and separated one from another or from eneral medicine. They are not becoming nore narrow. The specialist is not ignoring nd forgetting other fields. He cannot. The imes do not allow it. It is true that in the natter of technique in examination and treatnent these fields must be highly specialized. Efficient technique in these particulars cannot e acquired by one busy with other things. They require prolonged training and exclusive practice. But if the specialist is to keep up with the times, he must fall in line with the general advance in medicine and seek in every way to maintain a broad knowledge of medical science.

HIGH FREQUENCY CURRENTS

By JOSEPH E. G. WADDINGTON, M. D., C. M., Detroit, Mich.

A HIGH frequency current is an alternating, oscillatory current, with a periodicity of anywhere from thousands to millions per second, dependent upon the precise type and variety of high frequency current.

While we hear and read much of the high frequency current, the term high frequency is too often loosely employed and should always, for scientific and practical exactness, be additionally qualified by the name which distinguishes its particular type and attributes, as d'Arsonval, Tesla, or Oudin high frequency current.

Each one of these definitely different, though all genuine, high frequency currents is capable of an infinite variety and modification of amperage and voltage and, dependent upon and accordant to the consonant of clinical indication and treatment with the correct type and modification of current, will the results of treatment be good, bad or indifferent.

This obviously leads to the practical conclusion that high frequency machines, though generically related, are of many species, differing greatly in regard to both quantity and quality of current.

Too often the medical tyro, not conversant with the characteristics and differing mechanical features of a d'Arsonval coil or an Oudin resonator, is imposed upon, and confidingly purchases a high frequency machine which, though built of wondrous size, with beauteous cabinet work, a prodigious spark gap giving a blinding flash and a thunderous noise or possibly, on the contrary, with a much stressed soft pedal, ladylike action, unfortunately for desired results produces only a Tesla current and, even though productive of manifold strength and its more or less numerous terminals decoratedly and variously designated as something else, is but a Tesla still.

All sparks look much alike to the uninitiated and the larger and apparently stronger the detonating illumination, the more impressively sonorous from the agent's vocally persuasive viewpoint.

A high frequency machine minus an Oudin resonator cannot by any other manner of mechanical means deliver an Oudin current and the physician who essays to "painlessly" remove moles, other small growths and blemishes from his lady patients, with a hot Tesla spark, under the erroneous idea that he is employing an Oudin "cold" spark, merely because

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there is a unipolar ball connection upon the top or side of his machine, which the agent has euphoniously, so to state, rather than mendaciously, dignified as an Oudin current, will doubtless ascertain still later in his experience and lack of successful results, that the auto-condensation terminals do not give a true d'Arsonval current but only another modification of the rather ubiquitous and more easily manufactured Tesla current, which latter, though possessing most valued and quite often specifically indicated properties, cannot be expected to produce results solely attainable by an entirely different form of winding or construction; also terminals, marked diathermy may give quite an appreciable degree of heat and yet be incapable of the fine gradation and control of heat so essential to perfect results when that modality is indicated, either surgically or medically. Again, terminals marked Thermo-Faradic have been found to give a certain amount of diathermy but with no appreciable make and break to the current, an absolute essential for the induction of alternate contraction and relaxation of muscular tissue.

Oudin, Tesla, d'Arsonval, diathermy, Thermo-Faradic are not interchangable, homologous terms for everything or next to nothing in the form of a high frequency current but are very definite technical terms for constantly definite and specific forms of high frequency currents.

A minute dose of morphine is conceivably capable of inducing stimulation, the opposite effect to what one usually contemplates when prescribing a dose of that drug, but no one qualified to dispense drugs would ever think of employing morphine for the purpose of stimulation, and so with high frequency currents, the expert would never think of mistaking or using a Tesla current for something that only a d'Arsonval or Oudin could satisfactorily accomplish.

Before purchasing a machine, to say nothing of using it, the physician, contemplating the use of these extremely valuable but two-edged currents of precision, should acquire some practical as well as academic knowledge from a well informed but preferably disinterested party of the second part.

It were useless to discuss a certain remedy and its indications and value, if there be any doubt as to the identity of such remedy or as to its purity and strength, and in discussing high frequency currents, it is essential to intelligent understanding that both speaker and hearer use and understand the same language and realize the exactness of electrotherapy terminology and the essentialness of employing high frequency machines capable of giving true d'Arsonval, Oudin and Tesla currents, with all their varied combinations and gradations of quality and quantity.

Comparing the three types of high frequency current, the d'Arsonval currents represents the highest amperage and lowest voltage—about 12,000 volts; the Tesla current represents medium amperage with medium voltage—about 35,000 volts; the Oudin current represents practically no amperage but extremely high voltage, apparently 60,000 volts.

The d'Arsonval current is essentially a thermic current and its therapeutic effects are dependent entirely upon the degree of heat used and evolved from the specific form of d'Arsonval current employed. In giving auto-condensation with a thin dialectric, whether of the chair or pad form, we use a high amperage, low voltage current and induce a heating process throughout the entire body. This helps to eliminate otherwise retained catabolic detritus through the sudorific action induced and also, through elevation of the body temperature, aids metabolism in general. Herein is the indication for d'Arsonval auto-condensation, as compared with the Tesla auto-condensation, this latter being used with a thick dialectric or cushion, induces a current of low amperage but comparatively high voltage; less heat is thereby generated and the therapeutic results are largely due to its stimulant properties. The elderly or prematurely aged, with generally impaired organs, and tissues saturated with retained toxins, cannot with safety undergo the relaxing, heating properties of the d'Arsonval current; the Tesla being invariably indicated in just such cases.

Diathermy, being a term usually though not necessarily applied to a lesser winding of the d'Arsonval current, may be used medically or surgically; medically, it is applied by means of wet pads, lead or other metal plates, snugly contacted to correspondent portions of the part affected. In conditions involving the joints or in deep seated lesions of the body, it is a most excellent method of applying the relaxant or stimulant properties of heat, as, unlike any other form of calorific application, the current or heat manifestation is usually greater at the center of the area treated than it is at the peripheral immediately contacting surfaces.

In applying diathermy which, as before stated, is purely a heat current, remember that heat may be stimulant, sedative, or destructive, exactly in proportion to the degree created and therefor be guided in accordance with the degree of activity or intensity desired.

In bronchial asthma we require sedation and large electrodes should be applied to the

back and front of the chest and a distinctly hot current given for at least thirty minutes.

In tubercular conditions we require stimulation and the current should be mild and administered for only ten minutes at a time; this for the early and pre-hemorrhagic stages.

In electro-coagulation of tonsils and of hemorrhoids, a good technique is to place the patient's hands upon a large plate of metal connected to the lower potential terminal of the d'Arsonval current, as in this technique we wish the highest amperage with the lowest corresponding voltage; the high potential terminal will be connected to a convenient needle or button, and only that degree of current turned on which will be just sufficient to turn the tissues white upon little more than momentary contact.

The Tesla current, besides being indicated in auto-condensation of certain type, is the current for employment through non-vacuum or condensing electrodes for either stimulation or sedation, according to degree of current and time consumed. A fair amount of current, with a brisk movement of the body electrode up and down the spine, especially if applied over a sheet of tissue paper, will give intense stimulation; more current, and the electrode kept in close though not necessarily stabile contact, will act in much the same manner as a diathermy application, but the thermic effect is very superficial.

The Oudin is the current par excellence for the removal of moles, small growths, and other blemishes. It is also excellent for preparatory treatment, in the removal of pigmented growths and patches by the subsequent use of the actinic ray, which latter will not penetrate pigment.

The Oudin is the current of choice when employing vacuum or non-vacuum electrodes for cavity treatment, as the Tesla current is too hot and harsh for application to delicate mucous surfaces. The Tesla can, however, be satisfactorily utilized in the treatment of rectal and vaginal pathology, by employing metal electrodes and these cavities can also be successfully treated with the same metal electrodes connected to the diathermy terminals, when heat and heat alone is indicated.

The Thermo-Faradic current is a valuable means of applying rhythmic, energetic stimulation to muscular and nerve tissues, and is a most excellent means of applying massage to an enlarged prostate.

High frequency currents are a very valuable adjunct to the physician's armamentarium, but like every other accessory, however valuable, should be considered solely as such and only used when and where specifically indicated.

Enough has been briefly summarized to show some of the chief indications for the employment of the various high frequency currents, and to direct attention to the reiterated important essential fact, that each current has its own special indications and value which no other current or modification can satisfactorily usurp.

605-607 Capital Theatre Building.

LIGHT AS A THERAPEUTIC AGENT

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THE following brief statements of physiologic principles will furnish a scientific foundation for the title of this paper.

The living animal organism manifests a series of exceedingly interestng phenomena from the standpoint of growth, movement, reproduction and mentality, from its conception to birth, from birth to maturity. Its development is the result of the introduction and assimilation of material from without. During life the animal exhibits a series of movements, which changes the relation of one part of the body to another, as well as the relative position to its environments showing the wiseness of nature in preparing the animal for its natural function and at a definite period reproduction ensues, thus perpetuating the species.

The Cell

Organic life in the animal and vegetable world originate in the cell which is the unit of organiaztion. A matured body of either is a congeries of cells of different kinds, each set having its own appropriate function of nutrition, secretion, absorption and assimilation. Here we are dealing directly with the animal cell, indirectly with the vegetable in the form of food necessary for nutrition. Although the different tissue cells vary in their shape, size and chemic composition, all come from a parent cell. **Every cell normal or otherwise has the special inherent power of selecting from the blood the proper constituents for its own nutrition and to maintain its individuality.** This inherent property continues normally as long as there is no interference, otherwise if a new abnormal cell is formed this cell assumes the same property. Cancer and scar tissues demonstrate this fact. A scar of any size remains a scar throughout life if nothing occurs to change it. The maintenance of the individuality of the cell perpetuates the individualiity of the tissue which it forms. Within the cell two opposing forces are continually in action, assimilation, and dissimulation and if equal

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there is nutritive equilibrium, the body being in the same state. The body is nurished by the introduction of food materials which are utilized for repairing disintegrated tissues, due to their activity, and in part, for the liberation of stored energy.

Living cells have the properties of **irritability, conductivity, movement** and **mentality.** Irritability is the reaction to some stimulant either mechanic, chemic, thermic or electric. It is a fundamental necessity essential in all forms of physiologic activity. Maintaining it requires sufficient food, including oxygen, a certain degree of moisture, suitable temperature, and the removal of waste products. All of these condition are realized in body metabolism and maintained by the nutrition obtained from the lymph found in the tissue spaces. The oxidation of these nutritives liberates stored energy in the form of heat, which in turn imparts to the material the proper degree of temperature. Into this fluid the waste products are discharged before their elimination.

Conductivity is the ability of living matter to transmit through itself a condition of activity as the result of some stimulus. It is developed in the nerves and vessels but, is more highly developed in the nerves. Its maintenance depends upon the same factors as irritability.

Movements are apparently spontaneous, manifested in all living cells.

Mentality as generally understood, relates more to the higher animals, especially to man.

The Blood

The blood is the nutritive fluid of the body and contains all the materials necessary for the maintainance of nutrition. Its presence and circulation are absolutely required to maintain irritability, conductivity, movement and mentality of the cell and all forms of physiologic activity. If sufficient blood is lost, all ceases except irritability. It persists for some time but gradually declines and finally ceases altogether.

The blood is brought into close relation with the lymph through the intermediation of the capilary system. During its circulation through these delicate vessels, portions of its soluble constituents including oxygen are given up to the lymph, from this they are absorbed by the different tissues, being used for growth, repair, and the liberation of heat. At the same time the tissues yield up to the blood the decomposed products accumulating from their activity, and these are then eliminated.

Normal blood and lymph are slightly alkaline. **This alkalinity must be maintained to prevent death. An acid or even a neutral blood** or **lymph** is **dangerous. Only an alkaline condition** of both will resist disease. Grossly the blood contains plasma, white and red corpuscles. The red absorb and carry oxygen from the lungs to the various organs and tissues of the body. The white corpuscles may be termed the scavengers and protectors of the body.

Circulation of the Blood

Capillary blood vessels offer considerable resistance to the circulation, known as peripheral resistance. The function of the arterial system is to furnish blood to the entire body, to accommodate the volume of blood and regulate the amount demanded by the different organs, to present that degree of resistance necessary to maintain normal blood pressure. The function of the capillary system is to permit the passage of the nutritive material of the blood into the surrounding tissue spaces, and the passage of the waste products from the tissue spaces into the blood. The forces concerned in these exchanges are termed diffusion, osmosis and filtration. The function of the venous system is to collect the blood from the capillary areas, transmitting it to the heart.

Blood Pressure

Experimental procedures demonstrate that the blood pressure is uniform in different parts of the arterial system until the capillaries are approached, then resistance is suddenly developed. High blood pressure may be reduced by agents which overcome peripheral resistance as diet, drugs, light, electricity, and various other forms of physiologic modalities. A rise in blood pressure decreases, and fall in pressure increases the heart rate. The forces concerned in the circulation are 1st; the contraction of the heart; 2nd, action of its valves; 3rd, muscle contraction; 4th, Thorasic respiration.

Respiration

During respiration oxygen is absorbed and carbon dioxide discharged. These changes take place in the tissues and the cells from which they are formed. Without these chemical changes life could not be maintained.

Animal Heat

The body has a temperature the result of the liberation of heat, due to the chemical changes taking place in the tissues and organs. Every contraction of a muscle, act of secretion, and nerve impulse is accompanied by evolution of heat. The ultimate source of heat is the energy stored up in the food principles, which was absorbed from the sun during the growth of the vegetable world. During metabolism, the blood principles are disrupted and reduced by oxidation, directly or indirectly, to simple bodies, as urea, carbon dioxide and water, with the liberation of a large por-

tion of their stored energy to a greater or less degree in all tissues and in food cells undergoing disruption and oxidation. The tissues which liberate heat most energetically are the muscles and glands. An important factor in increased heat production is the climatic influence of the colder months. Here there is increased stimulation of cutaneous nerves and spinal cord centers, hence increased activity of muscles, glands and other tissues, increased matabolism, requiring increased consumption of foods. The ultimate result of all these changes is, increased heat production.

Heat Dissipation

Heat dissipation by the body must be equal to the heat liberated in order that a uniform temperature may be maintained. Heat dissipation is mainly by radiation and conduction, from the skin, about 70 per cent, and evaporation of water from the skin and lungs 25 per cent. This process is influenced by the temperature of external air, clothing, and nervous system.

Excretion

Is the elimination of the waste products of metabolism, and is similar to secretion. The principle excretions are urine, perspiration, bile and waste products of digestion. The kidney is the most important of the urinary organs, through which the urine is both secreted and excreted. The skin is the important factor in the elimination of perspiration. The liver is the important organ in the excretion of bile. The bowel in the waste products of digestion. Thus we may conclude that the three most important channels through which the waste material arising from body metabolism is eliminated, are the kidneys, bowels and skin.

Internal Secretions

Are complex materials produced by the ductless glands; these products are discharged into the blood and distributed to organs more or less remote, which they influence in various ways, some increase and some inhibit physiologic processes, while others modify metabolism. The special secretions of these glands are known as harmones. They are of known and unknown composition. These ductless glands consist of the Thyroid, Parathyroid Pituitary, Adrenal, Pancreas, Testicles, ovaries, Thymus, Spleen, and Pineal Body. The Thyroid is the most important. A Congenital absence of the thyroid or arrested development in early childhood is followed by a defective physical and mental condition that is extremely pitiful. The most characteristic of these phenomena are a small irregular shaped body, swollen face, puffy eyelids, broad flat nose, large tongue inclined to hang out of the mouth, slobbering, swollen abdomen, short thick legs, mental dullness and stupidity, even more or less idiocy. This condition is termed "Cretinism." The same condition obtains in the adult if the Thyroid gland is destroyed in any way, and is called "Myxedema." This condition shows the importance of a normal acting Thyroid gland and its influence on metabolism. The removal of the Parathyroids cause death preceded by a series of symptoms embraced under the general term "Tetany." There is a fibrillary contraction of muscles, tremors, paralysis of groups of muscles, often convulsions and coma. The removal of the Pituitary often causes death. This gland has a special influence on growth of sex organs. Distruction of the adrenals cause profound disturbance of the nutrition causing Addisons disease, characterized by extreme muscular weakness, a bronze-like discoloration of the skin and often death. The pancreas is an important factor in the causation of Diabetes. The thymus has a very material influence on the development of the child, especially during the first two years. The Pineal Body, if diseased, causes premature sexual development, early maturity, physical and mental obesity. The Spleen is supposed to be engaged in the production of white corpuscles. These are only a few of the functions of these glands, but sufficient to show their importance.

Hyperemia

Professor Bier in his work Hyperemia says: "In all important manifestations of life, Hyperemia is always present." Hyperemia of any part of the body means that there is more blood present than in a normal state. During every form of growth or regeneration, hyperemia is present in a degree corresponding to the rapidity and energy of the growth. Generation and procreation produce and intense hyperemia. No reaction of **the tissue cells to various stimuli-chemical, mechanical, electric or bacterial, occurs without producing hyperemia. Admitting the fact that the natural curative power of the body resides in the blood, then we must admit that hyperemia** is the most powerful of all auto-curative agents. If we desire to follow nature in its curative efforts we must increase the blood current in some cases, and decrease it in others. Hyperemia can be produced by drugs, moist or dry heat, constriction, suction, the various forms of electricity, X-Ray, radium, friction, vibration, sunlight, electric light, violet ray, etc. There are three primary forms of Hyperemia, active, passive and stasis, which gradually merge one into the other no matter how produced. As a rule stasis hyperemia is the best form to use.

General Effects of Hyperemia

All forms of Hyperemia accelerate the lymph current. There is no effect of hyperemia more

striking than the relief of pain. All forms have this property. The **old idea and the relief of pain in earache, tooth-ache,** etc., was due to the heat from the hot salt bag or hot water bottle was a mistake. It was the **hyperemia produced** by **the heat that gave relief.** As a general proposition, whatever the cause of pain no agent that I know of will bring relief as quickly as hyperemia. Clinical experience and experimental work have demonstrated beyond any doubt that hyperemia is one if not the most powerful **germicides** that we possess, also that its **absorptive** powers are beyond question, even producing the absorption of fibroid tumors, exudates concretions, catgut sutures in wounds. Any substance soluble in water is more easily absorbed. It will even cause absorption of bone, blood clots, hypertrophied, and scar-tissue. Of course, solid or semi-solid substances would have to be dissolved before absorption could take place, so the mere fact that these forms of substances are **undoubtedly absorbed** shows beyond question the **solvent powers** of **hyperemia.** With these known facts, would it be **unreasonable to believe** that **gall stones, renal calculi might** suffer the same fate, especially if certain drugs should be employed. I realize that I am treading upon dangerous ground in some of these suggestions, but nevertheless to find out something new is what we are here for. You may know many things that I do not know. The knowledge we acquire from personal experience is what governs us in forming definite conclusions.

The Nutritive Value of hyperemia is beyond dispute. The hastening of delayed union in fractures, the enlargement or development of the mamary glands, the rapid healing of wounds, prevention and curing gangrene, are sufficient evidence to demonstrate its nutritive value. We must admit that the body has the inherent power which is used for the prevention, arresting and curing diseases, healing wounds, destroying bacteria, and the various causes of diseases, and that this **power** must **reside** in the blood. This being true it is only reasonable to conclude that whenever we produce hyperemia, we are only helping nature by artificial methods or using one of nature's forces to aid another in the prevention of and curing disease. When hyperemia is produced in any part of the body nature's curative powers are concentrated, like bringing up reserve forces of an army. "The old maxim that man never cured anything that nature did the work with his help," is just as true today-as it was when first made. The more we study **hyperemia** and its physiologic effects, the broader the field becomes for its use in the treatment of disease. You can scarcely conceive of a disease which will not be benefited by its use. "Dr. Blech in his translation of Biers work on hyperemia. gives 210 references."

Having shown in a general way the physiological effects of hyperemia, and believing it to be the basic principle of nature's healing, it necessarily follows that the best and most practical manner by which we can produce hyperemia, will be the most satisfactory. From a practical experience of twenty-five years, in its use, I am forced to the conclusion that Light is the best agent for this purpose, and as a matter-of-fact to show more fully that I believe what I have stated is true, I will as briefly as possible discuss the physiologic effects of light. "White light."

Sunlight

The sun as we know is the great source of light energy. It is not practical to use sunlight, only at times and then in a minor way, because we cannot, for various reasons, control it. Hence, we use electric light as a substitute. The spectrum shows the same analysis as sunlight, as I understand it, consequently you would expect the same psysiological results, and that is practically what we get. When a ray of sunlight comes in contact with the earth, the resistance of the earth generates it into heat ray, which warms the earth, causing the growth of vegetation, etc. The same effect is produced when a ray from an electric light strikes the body. It penetrates the tissue, is absorbed and heat is generated within the body tissues, producing an active hyperemia, the skin becomes red, every cell becomes active, even in the deeper structures. There is dilation of both the superficial and deep seated blood vessels, increased circulation, sweat glands are stimulated and the intense perspiration is produced even at a temperature of 80° Farenheit. At 100 or 110° it simply runs in a stream, waste products are more rapidly eliminated, from increased circulation of the blood, metabolism is more energetic, capillaries are dilated and peripheral resistence is overcome, in fact there is not a single organ in the body but what feels the effect, either directly or by reflex action, through the nervous system. As you know different areas of the skin are intimately associated with the internal organs which they cover, through their nerve supply. Oxidation is increased, the hemoglobin is increased from 10 to 25 percent after one treatment, high blood pressure and rapid pulse are lowered, low blood pressure, slow pulse are raised, the heart is relieved to a great extent from the storing up of the blood in the skin from 1-3 to ½. There is no depression in an electric light bath, as in the Turkish bath, from the fact that the heat generated is internal and not external;

erms are destroyed, as it is one, if not our est germicide. Drs. Toussant and Chapout, Paris say: "There is no antiseptic as powerful as electric light." Diseased processes are rested, and large wounds heal rapidly without any scar. Dr. W. B. Snow says the same, so that there is no theraputic agent that will ntribute to the recovery of a case of pneuonia like radiant energy. When scar tissue absorbed the scar disappears, (and normal ssue takes its place). The rapidity of the rculation of the blood brings almost the entre volume of the blood under its influence ery quickly. Blood production is increased, gain drugs or other remedian agents that enefit the treatment of any diseased condition, cal or internal, must be conveyed there by ie circulating blood, hence hyperemia facilitates and hastens the physiologic action of all medial agents. Active, passive or stasis hyeremia can be produced by light. This enables us to get a concentrated action of our ugs, and natural healing forces and even the oisons in the blood, consequently wounds heal iore rapidly and diseases of all kinds especialy of the skin, get well quicker and poisons estroyed. I have said sufficient regarding the hysiological effects of light and hyperemia, nd as a conclusion will call your attention to ome of the possibilities of hyperemia, light nd drug medication. I believe that if we will reat cancer from a different view point, the iortality will be lessened instead of increasng. Dr. Buckley believes that cancer is simly a **local manifestation of a constitutional ondition,** and that body cells rebel against mproper nourishment and become riotous in heir actions, which seems pathologically plausble. The gastric and peptic ulcer is a local vidence of a systemic disturbance is the latst conclusion of some good men. We know hat in Syphilis the sore shows the point of noculation, and does not appear until the sysem is thoroughly charged with syphilitic oison.

Would it be unreasonable to believe the same f cancer? Sayjons says: "Cancer is primarly due to hypoactivity of the body's self **protective system, the adrenal system.** It is a icarious over growth of tissue cells which the gent of this system, Lencocytic and humoral, should have destroyed, a nidus of proliferating ells formed as a result of local irritation by raumatisms, inflammatory foci, parasites, noles, warts, etc. The defensive agents, phagocytes and auto-antitoxines which under normal conditions carry on general nutrition, they are able only, owing to their insufficiency, to nourish the tumor and promote development. He further states that "senility is the predominating predisposing cause of cancer". Freud also says that senility is the primary etilogical factor in its causation". Sajons again says "that cancer can be mastered by provoking active inflammation (hyperemia. The anterior pituitary body is the governing center of the body's self-protecting power, and by our remedies its functional activity can be enhanced at will, and thus causing an increase of anti-toxic properties of the blood. Hansen says: "Therapeutic treatment is wanted, which will reinforce the defensive power of the organism, by increasing the functional activity of the lencocytes or by developing chemical antidotes to the diseased process.

In the treatment of cancer we must raise the functional efficiency of the body's defensive resources, with agents which markedly increase the functions of adrenal system. In fully developed cancer, the blood is deficient in **sodium chloride,** X-Ray or radium cause a **rise of temperature and hyperemia.** Hydrochloric acid is absent in all cases of cancer of stomach. Hammerstein says that: "The hydrochloric acid of the stomach comes from the chlorides **especially chloride of sodium** (Therapeutic Hints) Use sparingly when there is any dropsical concondition. Dr. Geyser of N. Y. says: "Experimental work has demonstrated that a cancer cell cannot live in a temperature of 116°". T. Skinner says: "X-Ray stimulates the reparative function of the tissues dependent on an inflamatory reaction (hyperemia). I believe that if Sajons theory of causation is true his drug treatment of cancer is the best extant at the present time. Considering all that I have mentioned it seems to me that Dr. Buckley's claims are tenable and well worth our consideration, and further it only confirms the physiological effects of hyperemia.

By saturating the blood with the proper remedial agent, then concentrating the blood in the tumor with light, producing an intense hyperemia, I believe with diet and hygenic measures will cure cancer. We have in radiant energy heat, light, and violet ray all in one.

From a personal practical experience, I can say advisedly that of all therapeutic agents with which I have had any experience, that light covers the broadest field and does its work more satisfactorily if used properly than any other agent, and yet it is not a panacea. In heart diseases, functional or organic, it is one, if not our most valuable therapeutic agent, simply because from one-third to one-half of the volume of the blood can be stored in the capillary system relieving the heart of its hardest work. In developing the mamary glands it shows its nutritive value very conspicuously. By its use the mammary secretion is increased and with the administration of

galactagouges, the mother will be enabled to nurse her offspring, saving the baby from artificial feeding and disease, thus lessening infant mortality. In the treatment of diabetes. Brights disease, tuberculosis, in fact any acute or chronic disease, light is an excellent efficient and satisfactory therapeutic agent. The idea that exists both among the laity and profession, that nothing can be done for old chronic cases has no place in medicine, but I predict that in the not far distant future, the doctor who will not be convinced of the value of light as well as other Physio-Therapeutic modalities, will become a has-been. Our patients are entitled to the best and most effecacious treatment whether drugs or otherwise. The continuous or frequent use of light will accomplish seeming impossibilities. I will conclude with the recapitulation of a few practical physiological statements and name a few common every-day conditions in which I have used light successfully.

Saturate the blood with your drugs, organic extracts, vaccines, serums, etc., then concentrate the blood with your light at any point in the body you desire, in this way you are attacking the enemy both front and rear. You are bringing up natures reserve forces with your drugs and attack and the enemy will capitulate. Results are sure in vast majority of cases. Every cell normal or otherwise has the inherent power of selecting from the blood the proper constituents for its own nutrition and up-keep and to maintain its individuality.

I have used light treatment successfully in the following cases: Boils, carbuncles, infections, blood poison, eczema in various forms, soriasis, sciatica, neuralgia, trifacial and other forms, rheumatism, scars, varicose ulcer, appendicitis, running ear, mastoid abscess, tonsilitis, rheumatic throat, frost-bite, gangrene, asthma, tuberculosis, gallstone colic, neuralgia of the stomach, floating kidney, uterine prolaps, ovaritis, salpangitis, deafness, bladder disease, prostatitis, neurasthemia, ankylosed joints, phlebitis, suppressed menstraton, rheumatoid arthritis, asthma, hayfever, tooth-ache, tracoma, pink eye, granulated lids, etc.

Dr. Bright in 1803 recognized that cardiac hypertrophy so often found in chronic renal disease probably the result of the heart being forced to perform extra work in order to overcome an increased perpheral resistance. Here light is a valuable agent as it produces intense hyperemia in the capillary system especially the skin, a passive congestion is produced, which relieves the heart of its most difficult work.

Dr. C. F. Stone of Brooklyn, N. Y., in Medical Herald December, 1922 reports remarkable results in a very severe case of tuberculosis of the kidney. At the beginning of treatment the patient was so weak he had to be carried into the office. In May, 1919, weight 137. In January, 1921, weight 157. In November, 1922, 160. Symptoms all disappear- seemed perfectly normal, working every day and feeling fine. In same Journal Bordier reports curing an X-Ray cancer with "Diathermia" on himself. This is one of the methods of producing hyperemia. Growth and development of every tissue and organ is dependent upon hyperemia.

In the preparation of this paper, I do not remember of finding the word "hyperemia" used in the same sense that I have used it, by a single author, except in Blech's translation of Biers Hyperemia. I consulted freely the following authors: Toussey, Neiswanger, Bennett, Howell, McCleod, Brubaker, Juettner, Kassabian, Cleaves and Sajons, nor did I find any expression used with reference to the cells maintaining individuality, etc., nor the idea of concentration of blood saturated with drugs, etc., in the treatment of diseases, so far as I know, these ideas are original.

Bacon says: "Read, not to contradict, and confute, not to take for granted, but weigh and consider. Half-baked ideas may contain the germs of some original truth."

IF YOU COULD UNDERSTAND

If you could understand,
If you could sympathize with me,
If you would come to me with kindly beaming eyes
And hold my hand,
If you would say the words 'twere Heaven to hear—
I think, I think I could endure
And not be quite so drear;
And I might be able to be glad awhile
If you would smile
When you are near.

It is not much I need—
Not much, and yet, O God, I need it so!
A hand, a heart, something to lead
My soul from out this gloomy, low
Despondency—
Something to trust, something to call
To when my soul is lonely—
Something to hold
To when I feel myself about to fall—
Something to say of: This will last, I know.

I grope through tangled multitudes
Of thoughts, of fears,—
I stumble through deep solitudes
Where wanderers are often lost for years
Because no voice will call them to the light.
Oh for the tender, sweet, impassioned sight
Of someone who can understand,
And seeing me will come—
Will take me by the hand—
Will guide me to the path I've lost.

The prophylactic factor in T. B. is eugenic and social; in cancer it is individual, and consists in "treating local predisposing affections."

REPORT OF THE COMMITTEE ON CONSTANT CURRENT

FREDERICK H. MORSE, M. D., Chairman

THERE is nothing new that can be said of the constant current which is the fundamental electric force. Whatever therapeutic effects may have been noted by various operators with the direct current, it can in no way change certain physiological and chemical established actions and reactions that alone apply to the direct current.

Whatever claims are made of physiological action and therapeutic results from other forms of electrical devices, no matter how spectacular or otherwise, there always has been and will be a great variety of opinions about their action and curative ability.

The constant current, however, has a different action that cannot be changed by theoretical conclusions or personal opinion. The desirable action on the human body for the relief or cure of ailments must, of course, depend upon the physician's knowledge of the action of whatever modality he may use, combined with his diagnostic ability.

The effects which concern the physician most are (1) physiological and (2) chemical. It is possible that there are physiological effects due to the nervous stimulus, which can be distinguished ideally, at least, from those due to direct chemical or physical action.

There are four ways in which electrolysis can affect, in the living body, such tissue as muscle by its chemicophysical action: (1) by the chemical effects of the products liberated at the electrodes or in the substances of the tissues; (2) by the removal of electrolytes, chiefly inorganic substances which are necessary for the vitality of the tissues, leading to increased absorption of the elements, and perhaps, in consequence, to increased activity of the general nutrition in the tissue, or if the action be more intense, to diminish vitality, degeneration, and death; (3) by cataphoresis, leading to increase of transferred substances around the negative, and diminution around the positive, and the consequent increase of eliminating or absorbing activity, by which a tissue returns to healthy equilibrium, or to any of the results which follow the disturbance of equilibrium beyond the limits of health; (4) by raising the local temperature in both cases, but the physiological change may be very different.

Positive.

Physiological-sedative.

Physio-chemical: Accumulation of the negatively-charged ions of oxygen and chlorine.

Formation of an acid caustic, i. e., sulphuric, hydrochloric, nitric, and phosphoric acids.

Cataphoric: Loss of hydrogen and basic ions; loss of fluid, coagulation.

Starvation of tissues.

Production of a dry, hard, and non-retractile eschar.

Diffusion of ions of oxidizable metal electrodes or ionized solutions.

Antiseptic: First effect of current ischemia; second, hyperemia; but much less marked than at negative pole.

Negative.

(a) Physiological-stimulating.

(b) Physio-chemical: Accumulation of the positively-charged ions of hydrogen, sodium, potassium, calcium and ammonium.

Formation of an alkaline caustic, i. e., the hydrates of sodium, potassium, calcium and ammonium.

Production of a soft, retractile eschar.

Cataphoric: Accumulation of fluid and basic ions.

With mild currents nutrition promoted; with high currents denutritive effect.

Anaphoric: Ability to cause the positive ions of certain chemical.

Antiseptic, moderately. First effect of current, eschemia; second, hyperemia; ultimate effect, equalization of circulatory conditions.

By reason of this physio-chemical polar action, it may be readily seen that the physiological action is both sedative and stimulating, sedative resulting from contact with positive pole because of the cataphoric transfer of the ions of hydrogen and the bases from the region of positive polar contact to and towards that of negative contact, and stimulating at the negative by the increase in that region of fluid and positively-charged ions, which mean at once a hyperemia. By reason of this increased blood supply, stimulating and ultimately nutritional effects follow.

The characteristic action of the positive pole in relation to circulation is one of vasomotor constriction and of the negative one of vasomotor dilation.

The action of the physical effects of the current may be formulated as follows: Electrolysis chemically and cataphoresis mechanically alters the amount and distribution of salts necessary to the proper nutrition and function of the various parts of the living organism. By the latter there is a direct transference of the fluids and salts by way of the cell walls, muscle septa, coats of blood vessels, sheaths of nerves, skin, serous and mucous membranes, in fact, all animal membranes which from the physical point of view are all the very best kind of porous diaphragms. Primarily this action takes place throughout the tissues interposed be-

Read before the Western Electrotherapeutic Association, Kansas City, April 20, 1923.

tween the electrodes (not necessarily the nearest conduction), but secondarily its influence is felt beyond the interpolar region. Just as it is impossible for a local hemorrhage to exist without its influence being felt beyond the immediate site of the hemorrhage, just so it is impossible to drain a part cataphorically without the influence extending, even to the entire organism.

This physical effect may be carried to the extent of completely cutting off the blood supply, thereby causing immediate and actual destruction (electrolysis of a mole); or by interfering with it to such an extent that there is no channel left by which the inorganic constituents and proteid nutriment can be conveyed to the part with which to feed it, and death from starvation ensues (absorption of organized interstitial uterine inflammatory exudate or an ovarian tumor, only the normal fibroid); or, in lesser degree, only the normal action characteristic of ionization and osmosis necessary to nutrition and living tissue and in this latter instance the normal functions of the current result in a same physical effect as normal chemicophysiological stimulation of the movement from ion to ion processes, in the interpolar circuit, the bodily throughout complete neutral molecules, and transfer by normal non-electric osmosis. By this action nutritive changes are initiated and, by a sufficiently frequent repetition of the use of the current, are subsequently fully established. The one condition or the other will obtain according to the quantity of the current and the manner of its use, that is, whether a strong or a mild current is used, and whether the application is characterized by current distribution or current density. The use of a strong current of short duration, characterized by a current density, has either an intense irritant or else a destructive action whereas the same current, if characterized by current distribution, will produce an entirely different effect, because by reason of the increased electrode contact (square inch area), the energy expended in each square inch of surface is diminished in proportion to that increase.

A mild current, if long continued, will cause a profound change in the amount of fluids and salts in a part, and in this physical fact is to be found the therapeutic indication in pathological states, whether characterized by a diminished or altered blood supply, under nutritive activity, pelvic exudates, a benign degenerative process, or by an excess of fluids, as in a subacute rheumatism, for example.

In considering the physical properties and physiological action of the constant current, that therapeutic indication may be definitely determined, the salient physical feature in contradistinction to other currents must never be lost sight of, namely, polar action. In this lies the secret of its value over and above all other manifestations of electrical energy, whether in pathological physiology or recognized pathological anatomy.

There is to be had in the constant current a current operating at low pressure and small amperage, which, even in the minutest dose, cannot be used without polar action. A milliampere of current will decompose a single drop of water instantaneously with characteristic positive and negative movement of the ions.

Galvanocauterization and electrolysis must not be confounded. In galvanocauterization, use is made of a large quantity of electricity passing through a substance of high resistance, as a platinum loop. The platinum loop, by the transformation of electric energy into heat energy, becomes heated, and it is the heat and not electricity that is utilized in galvanocauterization. The tissues, by the action of galvanocauterization, are destroyed en masse, without any regard to their chemical composition. In electrolyzing animal tissues, heat is not an element to be considered. There is no more heat than can be accounted for by the activity of the chemical processes going on. The chemical activity in a galvanic cell depends on the strength of the current. In the same manner, the amount and activity of electrolysis in any tissue depends on the current-strength sent through the tissues, and the length of time the current is passing. When electrolysis alone is desired, the electrodes must be composed of some material not acted on by the galvanic current. In this case, the positive pole should be made of some non-oxidizable material, as platinum, carbon, or gold. The negative pole is not acted on by the galvanic current; its composition is therefore a matter of indifference.

While there is an interlocking of effect from the action of the various physiological stimuli, it is necessary for the securing of results to recognize their advantages and limitations.

Undoubtedly too many tonsils are being sacrificed which result in failures as to ends-attained; which results in discredit to the judgment of the doctor. More care and study should be given the case: not so much how the tonsils look, as to how they "act." Is there focal infect, inflammation, repeated attacks of tonsillitis, or a conservative need? Are you following your cases to end-results and getting a "profitable" result of benefit or cure?

¶ It will take more than three adjustments to relieve some subluxated minds.

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

STUFFED CAPSULES

¶ Electrocoagulation applied through the cystoscope will cure 90 per cent of cases of benign papilloma of the bladder.

✣ ✣ ✣

¶ Hypotension is the rule in psoriasis, lichen planus and erythematous lupus.

✣ ✣ ✣

¶ Hyperpiesia is a more common cause of retinitis than chronic nephritis. Treatment: Autocondensation for hyperpiesia and kidney diathermy for nephritis.

✣ ✣ ✣

¶ Stimulation of the splanchnic nerve induces a discharge of epinephrin and raises systolic blood pressure.

✣ ✣ ✣

¶ Epinephrin by subcutaneous injection usually lowers blood pressure in hyperpiesis, but increases it in acute glomerulonephritis.

✣ ✣ ✣

¶ Systolic pressure may be as low as 90 during sleep and high as 180 during hard work. An occasional high reading does not constitute hypertension.

✣ ✣ ✣

¶ Heart fore does not **per se** produce hypertension but the conditions prevailing in the blood vessels, chiefly in the arterioles and capillaries. Loss of elasticity calls for increased heart force to overcome the resistance.

✣ ✣ ✣

¶ Normal blood pressure is more or less maintained by the capillary network which acts as a suction pump. This function is easily disturbed by nervous excitement, worries, etc.

✣ ✣ ✣

¶ The last word in the etiology of blood pressure has not been written.

✣ ✣ ✣

¶ There are more diseased hearts in the normal blood pressures than in the low pressures.

✣ ✣ ✣

¶ Complaints of patients with hypotension in order of frequency are: exhaustion, nervousness, headache, indigestion, constipation, numbness of the extremities and vague abdominal pains.

Causative factors in hypotension in order of frequency are: disease of the digestive system, diseases of the vascular system, infections and psychoneuroses.

✣ ✣ ✣

¶ Hypertension is the most constant causative factor in myocarditis.

✣ ✣ ✣

¶ Approximately 20 per cent of the deaths from all causes in the United States are due to conditions evidenced by hypertension.

✣ ✣ ✣

¶ High arterial tension falls when cardiac insufficiency sets in.

✣ ✣ ✣

¶ Seventy-five per cent of non-valvular diseases of the heart is associated with hypertension.

✣ ✣ ✣

¶ Ill-advised exercise "to keep fit" is a frequent cause of hypertension and later on heart failure.

✣ ✣ ✣

¶ The mechanical efficiency of the heart is diminished by hypertension.

¶ A man is not an electrotherapist just because he can replace a spark plug.

✣ ✣ ✣

¶ Quinine will often cure malaria; diathermy will just as often abort a pneumonia.

✣ ✣ ✣

¶ He who believes that nothing can be done for a tuberculous kidney except "cutting it out" never tried diathermy.

✣ ✣ ✣

¶ A vacuum tube adorns many persons from the neck up.

THE SUBLIME AND THE RIDICULOUS

Blair in commenting on Lucan's style said: "It frequently happens that when the second line is sublime, the third, in which is meant to rise still higher, is perfect bombast."

Dr. Frank J. Novak, Jr., attending otolaryngologist, Cook County Hospital, Chicago, in an article entitled "The Electrocoagulation Method of Treating Tonsils," appearing in the Journal of the American Medical Association, June 23, 1923, page 1842, makes the ridiculous statement that the operation requires no skill, dexterity or experience on the part of the operator. This statement in the first paragraph of the article is, no doubt, intended to be facetious. Further on in his paper he states: "The technical skill and dexterity for the operation was no greater than that required to apply a swab of silver nitrate solution to the tonsil."

The results he is said to have secured plainly indicates that he believes the assertion he makes in the opening paragraph to be really sublime.

The article taken as a whole reflects a puerile knowledge of the fundamental principles governing the action of high frequency currents in general and high frequency surgery in particular.

With those who are familiar with the technic of desiccation and electrocoagulation in the management of diseased tonsils the conclusions of Dr. Novak fall on sterile soil.

The advantages of high frequency surgery over all other methods in the treatment of diseased tonsils are: no surgical shock; no embolism; no metastatic abscess; no trauma to adjacent tissues; complete sterilization; no contracting cicatrix; normal tonsilar tissue may be retained; elimination of danger attending and following enucleation. These, notwithstanding the postoperative discomfort, which in a few cases is more or less severe yet no greater than that following tonsillectomy, make the treatment by high frequency surgery the one of choice.

Voltaire said: "I have always made one prayer to God, a very short one. Here it is: 'My God, make our enemies very ridiculous.' God has granted it to me."

Continuing "The Medical Fortnightly and Laboratory News."

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Vol. XLII AUGUST, 1923 No. 8

The Editors' Forum

THE HEALTH CERTIFICATE AND MARRIAGE

The chances are that, having read the above heading, you have now thought of the man side of the affair, and that the question of gonorrhoea or syphilis was to be in evidence. No, this is different, and raises another question.

The following case fell to me recently for treatment: A young wife of two months standing, age 26, brunette with gray eyes, rather well developed, large and of pleasing appearance, took sick and I was called in. There were patches on the tonsils and I gave antitoxin. The dose had to be repeated the next morning over her protest; also two others of the household were immunized. Then the patient in this narrative threw a fit, which in its gross anatomy had all the earmarks of hysteria.

In a few days there was earache. A paracentesis was done. The recovery was slow.

During the sickness I had opportunity to observe that the patient was nervous, jumpy, rather fond of attention and of being nursed and fondled and petted. She had a will of her own which no one had as yet, up to husband number one, ever dreamed to circumvent.—That was sticking out all over the place! And though she was of the "best families" she was the dirtiest patient with her secretion I think I ever saw,—her spittle and ear discharges and the cloths! She did not care for clean pillow cases and silk kimono,—the mother had to protect them and wipe the secretions away, for no reason that I could see, except that she always had, probably.

The patient was bright and witty on convalescence.—She had been in school all her life.

The mother was a good looking woman, well developed, youthful looking for her age. She is a great church worker; has some special class of Bible instruction she puts on.

Now—when the new husband was about groomed for the wedding march, and the flowers had been ordered for the funeral, said mother came to him and asked him if he would mind to furnish a doctor's certificate peradventure as to his personal possibilities and his private and penal (!) pulchritude if any. The almost bridegroom was shocked. However, since the march had almost begun he went ahead with his part of it and furnished a clean bill of sale—health!

All went merry as a marriage bell, and the new wife was transported—to the new home, and there when the fire in the big cheery fireplace went out and the lights went out—the bride fell out. She was perfectly willing to be kissed and put to bed, but she slept on the edge of her own side of the bed, and if pursued and pressed and pinned down, peradventure to argue, pursuit seemed better than possession, and before should take the count she would roll out of bed onto the floor and say that it was perfectly disgusting and just like dogs 'n'ev'rything.

Time went on as time will do and said husband if any wore a worried look and sought the doctor's advice.

It seems that when his argument was forceful he sometimes obtained introitus as far as the "first joint," at which juncture she would say that she had had enough and that it was perfectly repulsive to her.

So there!

A council of war was finally arranged. Both sides agreed to an examination of the documents in evidence if any. The mother was sent for and the legal and lawful accusation of her being an accessory before the fact was reduced to writing. The bride, dry eyed, alert, tense, excited, stated her case briefly. Very brief:

"It is perfectly disgusting to me!"

"Don't you love your husband?"

"I guess so, I think so—I don't know!"

"Well, you took certain vows and pledges, didn't you?"

No answer; a certain curl of the lip was all

"You would be expected to have supper ready for friend husband if any if he came home hungry, wouldn't you?"

"That's different."

"Well, if you made the beds and it caused you to cough bad and fall right down on the floor you wouldn't make the beds, would you?"

A certain recurring curl of the lip and the suggestion of a look that said, "You're a wise old bird!"

Nothing came of nothing, only a certain mental reservation and indifference. No tears; several witty and humorous and kidding replies on her part. The only time I nearly got under the crust was when:

"If your husband left home two or three times a week for some woman that he preferred to you, and neglected to pet you, would that make any difference to you?"

"Yes!"—with which she flashed me a look and moved uneasily in her seat. I said:

"That would be cheating, wouldn't it?"

No answer, externally. I said:

"Don't you want any children?" The answer came low and meekly.

"No".

A local examination revealed nothing that should act as a barrier—below the cerebrum. (It used to be stated that the cerebellum had to do with the co-ordination of movement.)

Be that as it may.

P. S.—The husband tells me later that this is the life!

'N'ev'rything!

H. N. J.

"NARRY ROOM FOR TWA?"

There are two classes of general practitioners. The old-fashioned kind who believe in putting the sick one to bed, cleaning him out, watching and attending symptoms, assisting the healing power of nature, regulating the diet, shielding from friends and the cults, and let him get well, believing "That the doctor is supposed to treat not a name but the individual patient and the particular conditions in that patient."

Then there are the modern, scientific doctors who believe in first finding out what is the matter with the patient, and proceed to send him to the hospital and run the gamut of pathologist, physiologist, physiologic chemist, pharmacologist, bacteriologist and possibly the anesthetist.

Both of these, apparently, "mutually surpass each other."

"For one who has learned the conventional routine it is easy enough to prescribe for symptoms; but prescribing for symptoms alone is the resource of the ignorant and the inert."—Lee.

¶Example in Proportion: Violet Ray: Efficient High Frequency Machine: Wheelbarrow: Auto truck.

THE DOCTOR AND HIS AUTO

TWO signs attracted attention at the recent Kansas City motor show and are food for thought. The first read:

"Who Wants a Doctor Who Is Slow Enough and Insanitary Enough to Hitch Up a Horse?"

Another legend read:

"The Automobile Has Quadrupled the Working Time of Doctors."

All of which induces one to recall the doctor as he was known 15 or 20 years ago, with especial reference to those who lived in villages, and who carried on much of his practice in the country. The city doctor has lived pretty much the life of a business man, fairly well secured to an office or a hospital.

But the life of a rural practitioner has been modeled along the lines of a telegraph trouble "spotter," or a Northwest mounted policeman. He had no time of his own, home was merely nominal and rest was a myth. After a strenuous session at the office he and the old mare were in for a more strenuous time on the road. The tiresome buggy was used for a tour of some 15 miles and the physician spent one hour administering to the needs of four patients and three hours in touring. If he was fortunate enough to have a stableman, he, perhaps, would not have to drag his overworked nag to his feet in the middle of the night and fumble with the harness in a dimly lighted barn, but he might be in for an extended trip across several counties in a driving rain or snow with the raging elements pouring through top and tarpaulin and down his neck. The wink of Dr. Stork and the grim, beckoning finger of death made these little episodes only too real and frequent and very little romance has been attached to a life that warranted it.

Our rural physician is still a busy man. The sessions in the office are strenuous. And even though he uses a motor car, his hours still are long and his sleep punctured repeatedly.

BEHOLD THE LIGHT

"The Keystone of the new edifice is the general practitioner. He is the foundation of any medical service, its pivot, its anchor, its instrument."—Sir George Newman.

Atta boy!

ST. JOSEPH HOSPITAL

THE St. Joseph, Hospital—The Sisters—has made rapid progress during the past year toward standardization, in fact all the necessary steps have been taken except the last one. The "Chief" who inspected the institution recently declared himself ready to pronounce the blessing next morning if the men of the staff would all sign up not to divide fees. This has not been done, and may not be done. The question among the staff doctors is whether it is worse to refuse to sign or to sign and not keep the compact, as is done in other places.

The Ensworth Methodist Hospital is organizing its staff and matters are going along smoothly. Whether the final step will be taken or not remains to be seen. The prevailing impression is that in at least one nearby city where the hospitals have been standardized the members of the staffs are not living up to their vows, so why not be honest and open about it, and refuse to take a vow which will not be observed. So, there you are.

JOHN M. BELL., M. D.

VITAMINS? ? ?

THAT vitamins are of value mostly or perhaps only during the early years of life was evidenced at the meeting of the A. M. A. at San Francisco. The warden of San Quentin prison declares his large family of men and women receive practically no vitamins. They are fed meat, potatoes and white bread. They receive no milk, oranges, lemons, greeen vgetables nor any of the foodstuffs purporting to carry vitamins, yet they are hearty, robust, well developed and good specimens of manhood and womanhood as far as those who are confined may be. Since most of the past experiments in the vitamin field have been made upon young animals and children, it may be that the developed adult does not demand these organic compounds, that their field of usefulness is confined to early life, we have at least, a new viewpoint upon the subject.

Scientific truth is slow of development. We are prone to jump at conclusions, and time is always needed to show limitations of scientific law.

J. M. BELL, M. D.

If you have never believed much in Homeopathic dosage, have a little listen to this: In Pennsylvania, in a fish hatchery, the fish had goiter; by adding iodine (1-5,000,000) to the water the fish were cured.

The Holy of Holies

THE ONE-IDEA SYSTEM OF "MEDICINE"

I.

A MAN has a nervous breakdown, or something; he is lean, lank and dyspeptic. He has tried one system or cult and then another. While West roughing it he happens to be trying out some one's suggestion of a vegetarian diet. About this time he begins to get the benefit of his changed life and begins to perk-up on the eats. He goes home and gains 40 pounds; converts his table and family to the vegetarian fad and becomes a lecturer on cereals, fruits and nuts. I said nuts!

II.

The woman has spent years of invalidism, has tried mesmerism and faith cure and many marriages. About the time of the spent menopause she hits upon the open road dragging a sick cat with her which she nurses to life and usefulness and proclaims the Key to the situation.

III.

A doctor who has never been a howling success in his profession or physically, hits upon a one-man idea of bones—all he will use in his practice must conform to his bone-head idea. He will use boneset and bone-conduction,—conducting his clientel back to health and bury them in the bone-yard.

IV.

A less-than-thou goes the bonesetter one better. He closes his barber shop or his shoe store and proclaims that the blood is the health—if the bone is subluxated the nerve is impinged, the circulation cannot be did, then sickness has came, and there you are. That's all there is to it—there isn't any more. To know more is mere hindrance and detail.

V.

The carpenter had as lief say: I can do most of my work with one tool—I can build a house with a hatchet. I can drive a nail, draw a nail, cut a board. I find a hatchet the greatest tool in the world. I am a hatchetist, the greatest school, 'n'ev'rything. I charge the same as a carpenter.

VI.

I had as lief say, I am a Quinineist. I give quinine internally for malaria, or as a tonic, or to open the nose, or to stop the ears, or to rub on the skin for poison ivy, or for dan-

druff, or to inject it for goiter, piles and impotence. Quinine is the **sine-qua nine,** the **epluribus unum** the **non compos mentis.**

Oh ye of little faith!

What does it? Propaganda, advertising, enthusiasm! Let's have these in medicine! Oh, of course! I know—our ethics, our long-suffering, our vaunteth not itself stuff, is not puffed up, behaveth not itself unseemly, rejoiceth not in iniquity but rejoiceth in the truth, beareth all things, believeth all things, hopeth all things, endureth all things;—and that truth stuff—say that again—"rejoiceth in the truth." Ah, that's it! We want the public to know the truth. What we have we are not ashamed of. You tell the world. That's it. It pays to advertise.

VII.

¶ "The Code of Medical Ethics is the most antiquated, moss-covered, germ-ladened institution in the world."—Royal S. Copeland.

—That of course is not true, whatever it means; if it means anything. I am talking about advertising our wares—what we really do and hope to do, our duty to the community, to our profession.

¶ "An instictive impulse to relieve a sufferer was the origin of the healing art, and to make medical practice answer its ideals, this pure and noble sentiment must always prevail."—Dr. Huefland.

—Of course; I do not mean that; I mean to preserve our integrity, to maintain our community dignity, to merit the praise of a fickle clientele, to clean our own house by the incentive that comes from the visit of the neighbors and the proletariat.

¶ "Regulate all of your actions in such a manner that the highest end of your calling is saving life, restoring health and relieving suffering."—Dr. Huefland.

—Yes, I know, you might as well, for the socialists are going to legislate the idea into you anyway and take away your birthright for a mess of pottage, unless we beat them to it—that is what I am simmering about.

¶ "The subtle influence of one thus inspired is a benediction to both public and to his profession."—Dr. Furman.

—Yes, doctor, that worked very well in the old colonial free and untrammelled days, but today with the public reading all this high-powered magazine and newspaper criticism, and the cults passing out "the dope" on the medical profession—this our turning the other cheek is all very well, but some one is needed to step up and inform them they slapped the wrong fellow on the "other cheek." Who can be so ethical as to object? And the fellow to tell 'em the truth is Dr. Proper Ganda. Let's have him. "He that knows not and knows not that he knows not is a fool."—Proverb. Let's teach him! Truth will disinfect the cults, the quack and the impostor. We now treat them by "giving them more rope." Yes, but there is too much rope, and we buy so darned much of it.

¶ "What is a handful of gold compared to the tears of gratitude shed by the poor?"

—Yes, I was thinking of that. That is great. But that is ancient history. I do not know any "real" poor. I see no families any more now in the city who cannot pay—they all have automobiles.

¶ "To one donning the toga of Aesculapius, especially where the role of general medicine is assumed, the temptations of social life, and the lure of society, in the main, become the music of Syrens to which a deaf ear must be turned."—Dr. Furman, M. D., So. Med. and Surg.

—Oh, have a heart, doctor; why grovel in the dust, wear boots and a beard? There is nothing too good for Medicine! When we follow the meek and lowly Nazarene we build the finest churches, have paid choirs and the finest of every thing.

¶ "The opinion of the public in matters relative to which it is in position to know little, is formulated and moulded by the attitude of such representatives of the class with which it comes in contact."—Dr. Furman.

—Now we are getting down to cases. Only, the doctor does not seem to realize that the public today is in a position to learn everything; it is astounding what knowledge of medical things they now have. So, that word "attitude" I should modernize and extend to mean medical printer's ink, professional propaganda, pep, pecunia, perspiration, of the Regular class with which it comes in contact.

DR. H. N. JENNETT.

BLOSSOM TIME

The world is drunk at blossom time
With color, scent and light,
With sweet, blue air and sunlight wine,
With sorrow and delight!

There's apple blossom, peach and jear,
Against the sky aglow,
There's quince and cherry, doogwood wealth,
Sea foam, rose tinted snow.

And though the lilac's days are past
There's purple on the air
Where frail wisteria is flung,
With fragrance in her hair!

The hawker on the street cries out
His wares of berries red,
And all the world is mad with May,
So sweet—so swiftly sped!

—Faith Baldwin, in the New York Sun.

The Melting Pot

Down With the Mumps!!

¶ A Centralia man is encountering some of the joys and griefs of second childhood. At the age of 89, he is down with mumps.—News item.

✣ ✣ ✣

¶ This dancing craze is a very old mania—a "Psychic Mass Infection" (St. Vitus dance came on in 1485 through bewitching; not a chorea, then, as pilgrimages to shrines). The oldest record was as a curse by the priests to some dancers in 1021 who were disturbing their worship; the priests cursed them that they might dance a whole year and they sang and danced on without pause and without eating. They danced themselves into the ground up to their knees, when they were released through the prayers of two bishops. They fell into a sleep which lasted three days. Four of them died, the others retained a trembling as long as they lived and, later, travelled through the land, sick beggars arousing pity as participants in the Kolbigk dance miracle.—A. Martin, in Clinical Medicine.

✣ ✣ ✣

¶ Instead of assuming an air of supercilious superiority toward the general practitioner, the true specialist will look back with grateful appreciation of what he has learned in the general practice of medicine.—G. J. Warnshuis, Clinical Medicine.

✣ ✣ ✣

¶ All of my Pellagra patients recover promptly on a protein diet and the thyroid treatment. —J. P. Stewart in Intern. Jr. of Surgery.

✣ ✣ ✣

¶ Epilepsy should not be regarded as a disease to be treated as such, but as an evidence of some fault that must be found and corrected. —C. A. Bryce, Clinical Medicine.

✣ ✣ ✣

¶ From an experience in eight years with 400 cases of Anemia treated with transfusion, Dr. Duke, in Jr. Mo. State Med. Assoc. thinks transfusion of blood is logical treatment, harmless. immediate and certain in results. He says the permanence depends on the cause of the Anemia.

¶ The sigmoid is a frequent seat of diverticula. They are usually situated close together, form pockets in which fecal matter becomes impacted, and which when retained causes destruction of the mucus lining. Inasmuch as diverticula cannot discharge freely into the lumen of the gut, inflammatory products are retained and stimulate infection in the deeper layers of the bowel wall.

.. WHY WORRY?

Everywhere are smiles to spare
And everywhere a song—
Our good old world can run itself
And keep from going wrong.
—Wilbur D. Nesbit.

THE NERVOUS CHILD

THE neurotic tendency of American life must be overcome largely by education, or there are those who declare we are becoming a nation of neurasthenics. Those in authority are generally recognizing the need of a return to a more religious life for our people, not essentially sectarian, but the soberness which comes from the higher standards of Bible teaching and moral uplift. Dr. I. A. Abt of Chicago at the A. M. A. dwelt upon the need of the moral education for the neuropathic child, doctrine which inculcates a love of good, of truth and justice. "He who is true to himself and others is rarely overtaken with a disorder whose striking characteristics are exaggeration and dissatisfaction," is Dr. Abt's summary.

JOHN M. BELL, M. D.

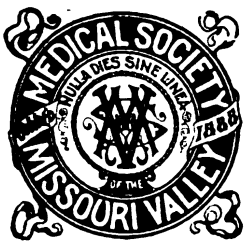
Truth Serum

A CONVINCING demonstration of the "truth" test serum was given at San Francisco during the meeting of the A M. A. in June.

The tests were supervised by Dr. R. E. House of Ferris, Tex., who originated the test. The demonstration was a success for the serum. Those who witnessed the proceeding, prison officials, criminologists, psychologists and general practitioners were won over largely to the feasibility of the serum. The drug scopalomine has in most cases the effect of reducing the individual to a state in which the subconscious predominates, a condition of child like frankness, so that questions are answered without evasiveness, a childlike honesty and openness without guile, deceit or fraud. The subjects laid bare their lives with a frankness shocking to the audience and pleasing to the experimenter. The histories of the subjects, as far as could be known, tallied with the responses to questions while in the subconscious state. The demonstration opens a wonderful field of investigation in the world of science and particularly in that of criminology. If accepted by courts of law it may have a deterring influence upon would-be criminals.

JOHN M. BELL, M. D.

Are You a Member?



"Come with us and we will do thee good"

ORGANIZED at Council Bluffs, Iowa, September 27, 1888. Objects: "The objects of this society shall be to foster, advance and disseminate medical knowledge; to uphold and maintain the dignity of the profession; and to encourage social and harmonious relations within its ranks."—Constitution.

The Newly Organized Association

The Interstate Society of Radiology and Physiotherapy

C. L. MULLINS, President *ROLAND G. BREUER, Secretary*

will meet in conjunction with

The Medical Society of the Missouri Valley

Morning Clinics Will Be Held on September 18 and 20

OMAHA, NEB., SEPTEMBER 18, 19, 20, 21, 1923

President
Floyd H. Spencer
St. Joseph, Mo.

First Vice-President
W. F. Stotler
Shenandoah, Iowa

Second Vice-President
Palmer Findley
Omaha, Neb.

Treasurer
O. C. Gebhart
St. Joseph, Mo.

Secretary
Charles Wood Fassett
Kansas City

Chairman Arrangement Committee
J. Fred Langdon
Omaha

THE OMAHA MEETING

All the plans have been completed for the thirty-sixth annual meeting of this association which is to be held at Hotel Fontenelle, Omaha, Neb., September 18 to 21, in conjunction with the meeting of the **Interstate Society of Radiology and Physiotherapy.** This is a new organization, and its sessions will be held at the Fontenelle on Tuesday and Wednesday, while the Missouri Valley sessions will be held on Thursday and Friday. This plan will give the members of both associations a chance to mingle, exchange their views, and to become acquainted. A joint "Get-together" dinner will be held on Wednesday evening, at which distinguished men will speak.

Dr. C. L. Mullins is the president of the Interstate Society, and Dr. Roland G. Breuer, of Lincoln, is the secretary.

Hotel reservations should be made without delay.

An elaborate exhibit will be held on the mezzanine floor of the Fontenelle hotel which will be worth while.

Clinics will be held on Tuesday and Thursday mornings.

The program for both meetings is now in the hands of the printer. If you do not receive a copy, advise the secretary. Chas. Wood Fassett, Secretary, 115 East 31st Street, Kansas City, Mo. Floyd H. Spencer, President, St. Joseph, Mo.

AN APPEAL FOR INFORMATION ON MATERNAL WELFARE

The Committee on Maternal Welfare of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons is anxious to procure accurate information as to the progress which each state is making in the matter of Maternal Welfare in order to formulate a report for our annual meeting in Philadelphia, in September. A preliminary program was published in the issue of the American Journal of Obstetrics and Gynecology for June, 1923, which it is hoped may be a suggestion of an outline for national work among all organizations which have a common basic line of endeavor including medical societies, departments of health and commissions of social workers. We shall be under many obligations if you will be kind enough to send at your early convenience a brief synopsis of the results accomplished in your state and most important, if possible, a contrast of the record of the clinics or regions where patients have been privileged to have pre-natal care with the statistics of the community in general where no supervision has been afforded the prospective mothers. These it is planned to have incorporated into the completed survey to be presented to the association and to be published in the Annual Transactions later on.—Dr. Henry Schwarz, St. Louis; Dr. George W. Kosmak, New York City; Dr. George Clark Mosher, Chairman, Kansas City.

AMERICAN MEDICAL ASSOCIATION

At the San Francisco meeting the following officers were elected:

President—Dr. W. A. Pusey, Chicago. (The vote standing 66 for Dr. Pusey and 62 for Dr. W. D. Haggard of Tennessee, the only candidates.)

Vice-President—Dr. Wm. E. Musgrave, San Francisco.

Secretary—Dr. Olin West, Chicago (re-elected).

Treasurer—Dr. Austin A. Hayden, Chicago (re-elected).

Speaker House of Delegates—Dr. F. C. Warnshuis, Grand Rapids (re-elected).

Next meeting in Chicago, 1924.

WILL YOU EXHIBIT?

Manufacturers who desire to exhibit at Omaha and Kansas City this fall should make early reservation of space. The meeting in Omaha will be held September 18, 19, 20 and 21, the Interstate Society of Radiology and Physiotherapy meeting the first two days, and the Medical Society of the Missouri Valley the last two days. In Kansas City, the Medical Association of the Southwest, Southwestern Urological Association, and Kansas City's fall clinics, will occupy Convention Hall, October 8 to 13. Many distinguished men of international reputation will be present. For blue prints and further information, address Dr. Charles Wood Fassett, Director of Exhibits, 115 East Thirty-first street, Kansas City, Mo. Reservations by wire will be given preference.

"A DANIEL COME TO JUDGMENT! YEA, A DANIEL!"

The Journal A. M. A., June 23, 1923, recommends diathermy in the treatment of Arthritis Deformans.

Medical Association of the Southwest
Kansas City Annual Fall Clinics
Southwestern Urological Association
Convention Hall, Kansas City, Mo., October 8 to 13, 1923

The Medical Association of the Southwest will be entertained in Kansas City from October 8 to 13, 1923, with a clinical program of unusual distinction provided through the efforts of the newly organized Kansas City Clinical Society.

The distinguished guests who have accepted invitations include:

Dr. John B. Deaver, Philadelphia.
Dr. Joel Goldthwait, Boston.
Dr. Lewellys Barker, Baltimore.
Dr. J. Whitridge Williams, Baltimore.
Dr. Joseph Beck, Chicago.
Dr. J. H. Cunningham, Boston.
Dr. Peter Bassoe, Chicago.
Dr. Jay Frank Schamberg, Philadelphia.
Dr. Reubin Peterson, Ann Arbor.
Dr. F. M. Pottenger, Monrovia, Calif.
Dr. Henry Dwight Chapin, New York.

These distinguished guests will provide the programs at Convention Hall on Tuesday, Wednesday and Thursday, October 9, 10 and 11. Convention Hall will be divided to house the commercial exhibit, scientific exhibit and a clinical amphitheatre, seating 2,500. The exhibits will be open from 8 to 10 a. m., 12 to 2 p. m., and 5 to 7 p. m. The clinical sessions will be from 10 to 12 a. m. and 3 to 5 p. m. Each distinguished guest will have one hour of time to thoroughly cover his subject.

Features of additional interest are being arranged by committees of the Kansas City Clinical Society so as to round out a full week of educational value and pleasure to all visitors. These features include:

1. Sectional Specialty Clinics and Conferences, on Monday, Friday and Saturday, October 8, 12 and 13. These will be promoted by the organized specialty societies in Kansas City, towit:

The Kansas City Eye, Ear, Nose and Throat Society.

The Roentgen Club of Kansas City .
The Kansas City Pathological Club.
The Urologic Club of Kansas City.
The Kansas City Obstetrical Society.
The Kansas City Pediatric Club and others.

2. Operative and Dry Clinics at hospitals of Greater Kansas City by Kansas City surgeons and clinicians, on Monday, Friday and Saturday, October 8, 12 and 13.

3. Public Health Propaganda Meeting. Tentative plans include a gigantic public health meeting for the public and the profession at Convention Hall on Tuesday evening, October 9th. Guests of international reputation will furnish the program.

4. Entertainment Features:

1. The Ladies. The wives and families of visitors will be well provided with entertainment by a large representative committee from the wives of Kansas City physicians. There will be shopping tours, luncheons at women's clubs, theatre parties and a feature event upon Thursday afternoon (October 10th) of an automobile tour which will end at one of the country clubs for tea.

2. Theatre Party. The entertainment committee is planning to lease a local theatre for Thursday evening (October 11th) and provide an evening of pleasure to all visitors, their wives and families.

3. Round Table Luncheons. Starting Monday noon there will be round table luncheon parties at definite clubs or hotels for the various specialties. These will be excellent opportunities to meet your colleagues and discuss individual problems. A chairman for each specialty has been provided and full information will be available at the registration booth in Convention Hall.

4. Golf. This new feature of medical conventions is recognized by a strong committee who will provide a diversity of tournament and social matches for every physician who brings his sticks and shoots below 150. There are ten golf clubs of 18 holes to which golfers will have access.

5. Alumni Meetings. Dinners will be arranged by local groups for visitors on Wednesday evening (October 10th).

Registration and Fees. The expenses of this meeting will be met by the Kansas City Clinical Society. There will be no charge to visiting physicians, **excepting the usual five dollars registration fee.** This will include admission to Convention Hall for all meetings. lectures, clinics, etc., and **free admission to**

theatre party and all entertainment features. Round table luncheons will be from fifty cents to one dollar.

Members of the Medical Association of the Southwest who have paid their annual dues of two dollars for 1923 will be given credit for this amount on the registration fee.

Hotel Headquarters: Muehlebach Hotel. Make your reservations early.

Registration Headquarters: Convention Hall.

For further information or advice address, The Kansas City Clinical Society, 400 Rialto Building, 900 Grand Avenue, Kansas City, Mo.

From Kansas City Star, Jan. 20, 1923.

BROADER SERVICE FOR MEDICAL RESOURCES

The clinical and hospital facilities of Kansas City have never been capitalized at their full worth. They can be made a genuine asset of the medical profession in a large section of the Southwest. To make them no less than that is the purpose of the Kansas City Academy of Medicine through the recently organized Kansas City Clinical Society. The academy is composed of physicians and surgeons who have made some individual contribution to medical science and who have established their competence in the profession. It is, therefore, fitted for its present undertaking.

What is aimed at is placing at the disposal of medical practitioners of this section of the country the wide variety of clinics that are held daily in Kansas City. The academy will link up these clinics through daily listing, and thus be in position to inform physicians in and out of the city as to the program at any particular hospital or other institution. It will form an intermediate agency between the members of the medical profession in this territory and the valuable sources of assistance which heretofore have not been properly utilized, just for lack of such an agency of information and encouragement.

Commendable attempts previously have been made to do in Kansas City something very like what the academy now proposes. This work is now to be systematically developed. It is not expected that full results will be attained at once; there are preparations for years of work. The clinical conference arranged for next October ought to give material impetus to the undertaking. The Medical Association of the Southwest will meet in Kansas City at the time of the conference; and before that time several thousand physicians of this territory will have been acquainted with the plans of the academy or will have come into direct contact with the clinics here.

In its further plans to bring to Kansas City medical authorities of national reputation, the academy will perform a service to the public of the city and territory as well as the physicians. The entire cause is worthy of the persistent effort and devotion which members of the academy are prepared to give it.

A NEW SPHYGMOMANOMETER

Dr. Pachon, Paris, presents to the profession a new sphygmomanometer which he calls the "oscillometre." The systolic and diastolic pressures are read without auscultation or palpatation of the pulse. It is made by G. Boulitte & Cie, Rue Bobillot 15, Paris, France. Price 350 francs.

CLAY COUNTY MEDICAL SOCIETY

The Clay County Medical Society met in annual June festival session, in Kearney, Mo., at high noon, Monday, June 25. Members, their wives and children participating to the number of thirty or thirty-five. Kearney is an historical little city—no matter how she got on the map of the world—and her motto is, Heart and Home, above all else.

Under the beautiful maples that adorn the Baptist Chapel grounds, in the heart of the city, the committee on entertainment, Drs. Rowell, Epler and Hamilton, had arranged an impromptu table some forty feet long, and accessible on both sides! Tanks of ice water and lemonade with lemons in it adorned a grassy knoll near at hand. Country cured ham, delicious roasts, fried chicken, angel food cake of five varieties, ice cream—a half barrel—and what not? All served in cafeteria style.

After the dinner a photograph was taken, by courtesy of the Smith's Pharmacy, who furnished the supplies therefor. No better friend than the Smith boys—and strictly ethical. The committee that arranged this wonderful meeting covered themselves with glory.

And the auxiliary—the society's wife, so to speak—formed a charming circle under the cool shade of a maple, and proceeded to enjoy themselves in games and friendly chat. They decided in semi-official session, that this plan be followed in future—the members to take full lunch baskets, the local committee to arrange for the hall, grounds, drinks, etc.—thus distributing the responsibilities in this labor of love. Wise always!

The scientific session was opened by Dr. H. Rowell, who introduced an interesting clinical case—a cortical lesion with progressive paralysis, aphasia, agraphia, etc. The patient was thoroughly examined and the clinical symptoms fully discussed.

Other topics brought up were, insulin in diabetes; vaccine therapy; protein intoxication in hypertension, and the technician who "fell off the tree before he got ripe."

Some decisive action will be taken at our next meeting in August on the question of how far a delinquent in dues and affiliation may carry on and still maintain good standing. Our society has about 35 members; it is possible for one member to keep the whole society off the roll of honor, by culpable neglect, for a whole year.

Dr. W. C. Hamilton of Kearney was unanimously elected and welcomed to full membership. Truly we are thriving. J. J. GAINES, Sec'y.

The second annual tournament of the Medico-Dental Golf Association of St. Joseph was pulled off Friday, July 13th, at the Highlands Country Club field. The cup offered by the Goetze Niemer Company was won by the Dentists. The highest individual score (90) was made by Dr. W. L. Kenny.

Dr. Harry H. Francis of St. Joseph in response to a recent ruling of the Buchanan County Medical Society, has resigned his membership rather than discontinue the Abrams method of treatment.

¶ Many theories require a lot of salt to preserve them.

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

PHYSIOLOGY AND BIOCHEMISTRY IN MODERN MEDICINE

By J. J. R. Macleod, M. B., Professor of Physiology in the University of Toronto, Toronto, Canada. With 243 illustrations, including nine plates in colors. St. Louis, C. V. Mosby Company, 1922. Price $11.00.

The author of this work has had a vision which will benefit succeeding generations of medical men beyond measure. The judicious blending of physiology with chemistry not only refreshes the senior student's earlier studies, but their combined application to clinical work gives a horizon unexpectedly far reaching and clear. It is just such work that has elucidated the problems of diabetes, nephritis, acidosis, goitre and myxedema. The work takes up first the physiochemic basis of physiologic processes, taking the reader back over the field of physics and chemical philosophy with the constant thought of the application of these principles to clinical medicine. Then, with the scientific aspect alert in the mind of the reader he is taken step by step through the blood and lymph, circulation in all its aspects, blood pressure, etc., respiration, digestion, excretion of urine, metabolism, the endocrine organs, central nervous system and control of muscular activity. The work is distinctly voluminous, but it must need be so to cover the field in all its detail. One would hardly attempt to read it through chapter by chapter seriatum, but rather as time affords study one topic, then another, until ultimately, when completed the reader will have had a post graduate course in medicine which will afford an outlook upon a broader horizon with a firmer grip upon cause, effect and result than had been dreamed of. The work contains 103 chapters, written in pleasant style and well illustrated, the sum total of which is a living over the entire curriculum from the first semester of the first year to the closing one of the fifth, and through it all is a new viewpoint, a medical philosophy profound and refreshing and illuminating, with much that was unknown as well as deductions of a new phase which suggest fresh applications in every-day medical practice.

J. M. B.

AN INTRODUCTION TO THE PRACTICE OF PREVENTIVE MEDICINE

By J. G. Fitzgerald, M. D., F. R. S. C. Professor of Hygiene and Preventive Medicine and Director Connaught Antitoxin Laboratories, University of Toronto. St. Louis, C. V. Mosby Company, 1923. Price $7.50.

A timely volume, a complete one, a welcome one since today, as never before, the general practitioner is becoming an integral part of the problems of preventive medicine. It will be appreciated by public health workers, administrators, physicians, sanitary engineers and public health nurses. The volume considers infectious diseases, diseases transmitted by food and water, insect borne diseases, those of unknown etiology, venereal diseases. General control of communicable diseases, water, milk, food, diet, domestic and community sanitation, school hygiene, city and rural hygiene, industrial hygiene, air, ventilation and a host of factors lost sight of by the general practitioner Yet which incorporate themselves into the problems of the day more and more intensely, so much so that medical men must cognizance of them in the onward progress of medicine. The doctor is becoming more and more a supervisor of public health and whether an

The Management of an Infant's Diet

Diarrhea of Infants

Three recommendations are made—

Stop at once the giving of milk.
Thoroughly clean out the intestinal tract.
Give nourishment composed of food elements capable of being absorbed with minimum digestive effort.

A diet that meets the condition is prepared as follows:

Mellin's Food . . **4 level tablespoonfuls**
Water (boiled, then cooled) . **16 fluidounces**

Feed small amounts at frequent intervals.

It is further suggested:—As soon as the stools lessen in number and improve in character, gradually build up the diet by substituting one ounce of skimmed milk for one ounce of water until the amount of skimmed milk is equal to the quantity of milk usually given for the age of the infant; also that no milk fat be given until the baby has completely recovered.

Mellin's Food Company, Boston, Mass.

actual member of a public health force or not, he meets the problems discussed in this volume. One who has given the subject little thought is surprised after reading the book how preventive medicine is becoming a point of general practice, and hence how difficult for the doctor to remain isolated, apart from the solution of city, rural or industrial aspects of what in the past was regarded purely preventive medicine. No book today will more completely, pleasantly and perfectly open the wide doors which have apparently and make one realize the door will never again be closed.

J. M. B.

IMPOTENCY, STERILITY AND ARTIFICIAL IMPREGNATION

By Frank P. Davis, Ph. B., M. D., author of several books. Second Edition, revised and enlarged. 168 pages. C. V. Mosby Company, St. Louis, 1923.

The chapter headings are as follows: The Sexual Instinct, The Sense of Smell, Effect of Odors on the Internal Secretions, The Voice and Sense of Hearing, The Sense of Sight, Impotency, Psychic Impotency, Sensuality in Women, Masturbation and Emission, Treatment of Impotency, Race Suicide, Sterility, Treatment of Sterility, Artificial Impregnation, Therapeutics. Dr. Davis has his new stuff in practical form and goes at once to the core of the matter.

H. N. J.

THE PRACTICE OF MEDICINE

By A. A. Stevens, M. D., Professor of Applied Therapeutics in the University of Pennsylvania, Professor of Therapeutics and Clinical Medicine in the Woman's College of Pennsylvania. Octavo, 1106 pages. W. B. Saunders Co., Philadelphia and London. 1922 Cloth, $7.50 net.

This book, from the pen of a practical man of years of experience in practice and in teaching, both in pathology and internal medicine, written with an honest endeavor to give the profession a book on practice that contains the latest and necessary material on pathology, diagnosis and treatment, separating the wheat from the tares, pruning out the dead stock—this book of Dr. Stevens gives us withal the best Practice of Medicine brought out in many a moon. There is so much questioned in medicine today, this book makes it refreshing and stabilizing for the general practitioner, to inform himself as to "where he is at." However, the controversial material, such as the endocrine therapy, the author has shown wisdom in omitting. But the use of the glandular products he mentions for diseased conditions if proven of worth. Polyvalent vaccines also are given. The work is complete, well arranged and well indexed. There is an omission in the index under pneumonia of "treatment;" and "lung fever" is not to be found indexed. The chapters on Tuberculosis are exhaustive and to date.

MERCK'S MANUAL OF THE MATERIA MEDICA

Fifth edition. A ready reference Pocket Book for the Physician and Surgeon. Compiled and published by Merck & Co., New York, 1923. 581 pages. Flexible linen, 50 cents; artificial leather, $1.00.

This is a practical, up-to-date, authoritative book for the doctor's desk. It is packed full of good things, and its being printed on Bible paper makes it small and convenient of use. It has four parts; drugs, therapeutics, classification of drugs under physiological action, and poisons and antidotes.

H. N. J.

NOTE—The Medical Herald's Kansas City office will supply any book reviewed in this department at publisher's price, prepaid. We can also supply any book by any publisher in the world. If an order for two books be sent at any one time, the purchaser will be entitled to a six months' subscription to the Herald.

A well-balanced compound of Cascara, Podophyllin, Colocynth and Hyoscyamus.

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Mild, 1 Grain—Strong, 4 Grains.

They normalize peristaltic action instead of inhibiting it, as so many evacuants and cathartics do.

They stimulate a flow of secretions, thus encouraging a normal physiological evacuation.

A trial, the most convincing argument. Send for samples and literature.

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Campetrodin

Campetrodin is a convenient, soothing application for wounds, bruises, sprains, burns, boils, ulcers, etc. Heals rapidly.

Campetrodin—Double Strength, as an inunction, is especially valuable in reducing swollen glands and relieving obstinate deep-seated rheumatic and neuralgic pains.

Samples to Physicians on Request.

A. H. ROBINS COMPANY

RICHMOND, VIRGINIA, U. S. A

HIGH FREQUENCY PRACTICE FOR PRACTITIONERS AND STUDENTS

By Burton Baker Grover, M. D., author of Handbook and Electrotherapy. Illustrated with ninety-five engravings. (Price $4.00.) Published by the Electron Press, Kansas City, Mo.

Dr. Grover's chapter on Diseases of the Eye in his work just issued on "High Frequency Practice," is a text book itself, and will be a welcome addition to Ophthalmology. Up to the present time electricity has been used by ophthalmologists in rather an empirical way and has been limited to a very few conditions.

Both the Galvanic and the High Frequency currents have stood the test of time, but now in Dr. Grover's work the way has been opened for further advances in the use of electricity upon the eye.

Much can be said for the analgesic properties of the high frequency current, as well as those of absorption of pathologic conditions by the galvanic current.

Local anaesthesia of the softer and looser tissues of the orbit and appendages has in many cases been prevented by the oedema caused by the fluid necessary for the injection, thus causing landmarks to be misplaced, but now new light has been shed upon the situation by the use of "Ionization." Thus the anaesthetic can be introduced into the deeper tissues without any mechanical interference in the operation field.

"High Frequency Practice" (Grover), is a work which should be in the hands of every ophthalmologist.

E. M. MARBOURG, M. D.

BEYOND THE FARTHEST STAR

The poet asks of Mignon fair—
The question thrills, and stirs the soul.
"What lies beyond the farthest star?"
Beyond the space that sight controls,
In that unknown beyond which we
With puny intellect can comprehend,
With all our learned science fail to see,
Is God's eternal space; there is no end.

Beyond the farthest star another shines,
Who's brightness lights the way
Where the universe, continuous reclines
Into that incomprehensible eternity.
From this small grain of sand
We look into the unfathomable space
Of God's eternal strand,
And see our littleness.

The sunlight glistens on the snow
That caps the lofty mountain's peak,
In sullen anger far below
The ocean's mighty billows sweep.
Awe inspiring thoughts of ocean's magnitude
The sun's great brilliant rays,
The lofty mountain's solitude,
Earth an atom of the universe.

Beyond the farthest star that we can see
Our vision ends, and there begins
The great highway of God's eternity.
Is it good night, or endless day?
The gentle shepherd with his rod
Points to the star that's far away,
And still beyond, to God.

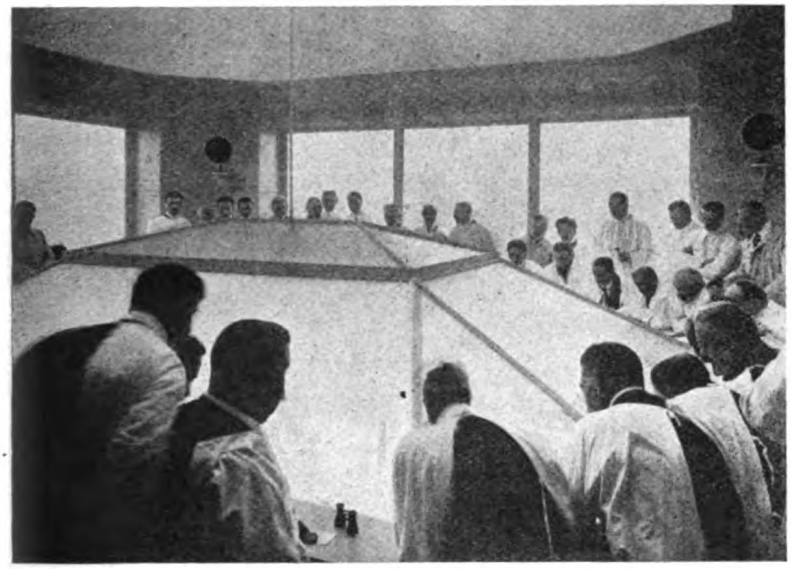
—Willard L. McGuire.



Medical Melange

THE MOST MODERN MEDICAL OPERATING ROOM IN THE WORLD

Students and doctors see operations through glass dome and hear comments of operating doctors through radio microphones.



Photo, Kadel & Herbert News Photos, 36410-S-F

The most modern medical and operating room in the world has just been installed at St. Michel, Paris. The huge glass dome permits an audience of students and doctors to carefully observe the operations and also to hear all sounds and conversations, however low, with the aid of the radio microphone. By this method twenty to fifty students can see the most complicated operations performed without disturbing the surgeons performing. Photo shows students and doctors looking through the huge glass dome watching the operations in the room below. The radio microphone can be seen in the background.

The Prevention of Rabies

Dr. J. G. Cumming, formerly of Ann Arbor, Mich., has subjected rabies vaccine to certain manipulations which, it is claimed, make it perfectly safe in the hands of any physician, without in the least degree impairing its effectiveness. In fact, we are told that the Cumming vaccine (made from the brain of rabid animals) is more active, confers immunity more rapidly, than the desiccated cord with which the classic Pasteur treatment is performed. Rabies Vaccine (Cumming) is supplied by Parke, Davis & Co. in packages of seven doses, three such packages for a complete series of 21 daily injections, or two packages (14 doses) in cases of slight wounds on the lower limbs. The vaccine is shipped in installments to minimize the risk of exposure to high temperatures. Parke, Davis & Co. have a booklet on Rabies Vaccine which they offer to all medical inquirers free.

When A Tonic Is Needed

and the functions of the body are depressed and deficient, what restorative or reconstructive do you know of that will do more for the weak and debilitated than

Gray's Glycerine Tonic Comp.?

If you are not familiar with the therapeutic efficiency of Gray's Glycerine Tonic Comp., a trial in some case will show you the advantages of using a remedy that for over a third of a century has never failed in its responsibility and good faith to those it has served.

What tonic when given to patients convalescent from *influenza, bronchitis, pneumonia, diphtheria, scarlet fever* or *measles,* or from *surgical operations,* will so promptly stimulate the appetite, improve the digestion, increase the assimilation of food and thus restore vitality and strength, as Gray's Glycerine Tonic Comp.?

The answer to the foregoing is found in the thousands of medical men who use it regularly whenever a tonic is indicated. Their experience in countless cases has conclusively shown them that it has no superior in its field of use.

The Purdue Frederick Co.

135 Christopher Street, New York

RECONSTRUCTIVE AFTER CONTINUED ILLNESS

For reconstructive purposes after a long wasting illness cod liver oil has demonstrated its high value. The vital powers have been badly depleted and the need is for an agent that will aid in early restoration to normal vigor. However, it must be borne in mind that ordinary preparations of cod liver oil by reason of their objectionable taste may not prove acceptable for which reason palatability must be a point of importance in making a choice. If Cord. Ext. 01. Morrhuae Comp. (Hagee) is the preparation chosen, the physician may know that he is employing an agent of therapeutic merit and which at the same time is exceptionally palatable. For this latter reason it may be given over long periods without causing distress. For the purpose in hand it may be relied upon.

SUPPURATING SINUSES

In those suppurating sinuses that are proving refractory to the treatment you have been employing, take advantage of the experience of others in similar conditions and make use of Ecthol (Battle). In addition to the germicidal and disinfecting influence it exerts its use both internally and externally, tends to raise tissue resistance. The usual mode of employment is to irrigate and then pack the sinuses lightly with gauze saturated with Ecthol (Battle). The same agent is also given internally. Very gratifying results have followed this plan of treatment.

A SEDATIVE OF DISTINCT MERIT

A sedative of distinct merit is to be found in Pasadyne (Daniel). The advantages offered by this sedative lie in its marked therapeutic potency and its freedom from untoward after-effects. And when it is recalled that many of the sedatives of soporifics usually employed give rise to immediate or remote evil effects, such as gastric disturbance, cardiac depression or habit-formation, the actual value of Pasadyne's advantages become all the more apparent. Pasadyne (Daniel) is simply a concentrated tincture of passiflora Incarnate. As a sedative, especially in women and children, it may be used with every confidence. A sample bottle of Pasadyne (Daniel) may be had by addressing the laboratory of John B. Daniel, Inc., Atlanta, Ga.

THERAPEUTIC EFFICIENCY OF H. V. C.

The practice of allopathic medicine calls for the employment of many therapeutic agents which experience has proven to have been of value in relieving diseased conditions. While it is true that physicians of this school seek first to find the cause of the morbid conditions and then to apply such treatment as experience has proven will remove such cause, it is also a matter of every day experience that certain drugs have to be prescribed, more or less empirically. We may theorize regarding causes operating to produce this or that condition. We can disagree with so-called authority or we can even go so far as to become therapeutic nihilists. The late Oliver Wendell Holmes put into very apt form the relation between theory and practice and the value of common sense in the treatment of disease. The older generation of physicians gave more study to the action and effects produced by certain drugs, or combination of drugs. In other words, they laid less stress upon theory and depended more upon actual results. This class of doctors used Viburnum, and certain combinations containing Viburnum, because they found by so doing that their patients obtained relief. Years ago Hayden's Vilburnum Compound demonstrated beyond question its therapeutic efficiency. In spite of the modern tendency to question or doubt the value of such old, time-proven remedies, the use of H. V. C. has persisted and continued and has even increased. This fact is prima facie evidence of its practical value. The physician who doubts the value of H. V. C. is, in 99 cases out of 100, the physician who has never tried it clinically. A clinical test of H. V. C. will convince the most skeptical. A clinical test may be easily made because a request addressed to The New York Pharmaceutical Company, Bedford Springs, Bedford, Mass., will bring a sample and interesting literature on this product and thus place in the hands of every doctor an opportunity to convince himself as to the practical value of this old and time-proven preparation.

FUNCTIONAL HEART DISEASES

"I have prescribed your Cactina Pillets," says a well-known practitioner, "in numerous cases of functional heart troubles during the last seven years with excellent results. In my hands it has proved the remedy par excellence in the so-called 'soldier's' or 'nicotine heart.' Indeed, I have found that both functional and organic cardiac disorders are often benefited by Cactina Pillets when other measures fail completely. It is always gratifying to me, moreover, to observe the promptness with which one to three Cactina Pillets will tranquillize the excitable heart following physical strains or excesses."

THE APPETITELESS CHILD

Many children who are apparently well nourished and happy, are exceedingly small feeders, and are apt to cause no little concern to relatives and friends because of lack of appetite. While it is not wise to attach undue importance to such continued anorexia, it is always gratifying to the child's parents if the physician orders something which puts an edge on the appetite. Gude's Peto-Mangan is the one ideal ℞ in such cases, as it is exceedingly pleasant in taste, easily taken by the youngest child, and seems to have the special property of increasing the desire for food, without disturbing the stomach, or causing constipation. For older children, Gude's Peto-Mangan in tablet form is often preferable to the liquid (the medicinal ingredients and therapeutic action being identical) because of its convenience and portability. The dosage should, of course, be regulated by the age and general condition of the child. Sample of either liquid or tablets, together with literature, are obtainable from the manufacturers, M. J. Breitenbach Co., New York.

In Acne DERMATONE Does
ZEMATOL Does in Eczema
Use Them and Prove Them
Backed by 25 years of successful clinical experience.
Catalog of pharmaceuticals mailed on request
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ILETIN (INSULIN, LILLY)

The remarkable specificity and the great value of Insulin in the treatment of diabetes has already been conclusively proved. It cannot be considered a cure for diabetes in the usual sense of the word but it enables the diabetic patient to utilize carbohydrates in a normal manner, to regain health and strength and maintain normal activity so long as the use of the extract is continued. For detailed information on this subject reference should be made to the statement of the Insulin Committee of the University of Toronto which recently appeared in the Journal of the American Medical Association, to an article by Banting, Campbell and Fletcher in the British Medical Journal, January 6, 1923, and particularly to a special Insulin number of the Journal of Metabolic Research which contains a series of detailed reports on clinical experience with Insulin by Banting, Campbell, Fletcher, Allen, Fitz, Geyelin, Joslin, Wilder, Williams and Woodyatt. The purified product produced in the Indianapolis laboratories, which was given the name Iletin (Insulin, Lilly) was first tested in the Medical Clinic of the University of Toronto under the supervision of Dr. Duncan Graham, by Drs. F. G. Banting, W. R. Campbell and A. A. Fletcher and in the Christie Street Military Hospital by Drs. Banting and Gilchrist. Subsequently, with the approval of the Toronto investigators, Iletin was submitted to a group of diabetic specialists in the United States for further clinical investigation. During this experimental period Iletin was supplied gratis and as a result of the close co-operation between the Toronto discoveries, the clinical investigators in Canada and the United States and the research staff of the Lilly Laboratories, very rapid progress was made in improving the product and determining the best means of utilizing it clinically. Iletin (Insulin, Lilly) is supplies at present in aqueous solution for hypodermic use only. Given orally it is ineffective. This solution is quite stable and may be preserved at room temperature or preferably in a cool place. No appreciable deterioration has been shown during a period of several months. Aging tests covering longer periods are now in progress. Iletin is supplied to physicians in 5 cc. ampoules and in two strengths. Iletin H-10 contains 10 units per cc. or 50 units per ampoule: Iletin H-20 contains 20 units per cc. or 100 units per ampoule. At present Iletin is not placed in stock with wholesale or retail druggists, but is shipped directly to those physicians who certify on a special Iletin order form that they have complied with the conditions for its use. Shipments are made on orders transmitted by the drug trade and invoices are rendered through the usual trade channels. Correspondence is invited by Eli Lilly and Company, Indianapolis, Ind.

ABOLITION OF COCAINE

The following communication appeared in the London Times of March 24th. The authors, Sir. W. M. Bayliss and Dr. C. W. Saleeby, are among the best known medical authorities in Great Britain. This letter is of interest in this country as showing the attitude of physicians in England towards the narcotic situation there and particularly to cocaine. It is also of interest to note that credit is given to American research for the discovery of a safe substitute for cocaine.

To The Editor of the Times: "We submit that the abolition of the use of cocaine by international action is the only effective means of ending the evils to which this drug gives rise, and this is now feasible without detriment to any department of surgical practice. The failure, everywhere, of all past or present methods of control is acknowledged. One of us has recently observed, in Montreal, the futility of the combined efforts of the police, the health authorities and the customs officers, and he has returned to Europe to find similar failure alike in this country and in France. Montreal, it may be noted, is the headquarters for the illicit distribution of the drug in North America. It is evident, and for evident reasons, that so long as the drug is manufactured it will be misused. In the light of the experience of other countries, we are entirely skeptical of the success of the new legislation proposed by the Home Office. The Committee on the Use of Cocaine in Dentistry reported in 1917 (Cd. 8489), suggesting further restrictive legislation. One of the present writers, serving on that committee, did not sign the report, but appended a memorandum in which the view was expressed that, according to the evidence of leading dental surgeons, cocaine was no longer needed in dentistry, completely effective substitutes, such as procaine, being available. A new synthetic substitute, known for short as "butyn," has now been prepared in Chicago, and tested widely with very good results. Like procaine, it has no action on the central nervous system. A highly favorable report on its use in ophthalmic practice appeared in the British Medical Journal for January 13th, last. Its introduction completes the argument advanced in 1917. International action should, therefore, be taken to end the present manufacture of cocaine in Germany and Switzerland or elsewhere, and the cultivation of the coca plant in Peru, Java, Bolivia and other countries. The best instrument for such action, given an instructed and active public opinion in the various countries concerned, is the Opium Committee of the League of Nations. Though neither the United States nor Germany is as yet a member of the league, both of these countries are represented on the Opium Committee. We urge that our government should give full and cogent instructions in this sense to Sir Malcolm Delevigne, the British representative on that committee, prior to its next meeting in May. This, we are convinced, is the only way with cocaine. We are, sir, yours, W. M. Bayliss, C. W. Saleeby."

PREVENTS SUNBURN

How to prevent sunburn, which comes as a sort of penalty after a sportive day at the beach or an outing in the country, the bane of the vacationist? The doctor has had the question put to him often by one and all, but especially by young women, who value their complexions. We have always had ointments and lotions calculated to allay the irritation and smarting caused by the sun's rays. And some of these are helpful. But till now there has been nothing that would actually prevent sunburn. Sunex, just announced from The Abbott Laboratories, Chicago, does the trick. When applied before exposure, this ointment actually absorbs the ultra-violet rays and thus protects the skin from burning. It also relieves the irritation if applied afterwards. Druggists have it in stock or can readily procure it through the regular trade channels.

SCIENCE VERSUS NATURE

Methuselah ate what he found on his plate
  And never, as people do now,
Did he note the amount of the calorie count—
  He ate it because it was chow.
He wasn't disturbed, as at dinner he sat
  Destroying a roast or a pie,
To think it was lacking in granular fat
  Or a couple of vitamins shy.
He cheerfully chewed every species of food,
  Untroubled by worries or fears
Lest his health might be hurt by some fancy dessert,
  And he lived over nine hundred years!

American Medicine.

Golden Opportunities

BARGAINS FOR YOU

High Frequency Practice—By Dr. Burton Baker Grover. Second Edition. The most practical book of the day; contains everything you want to know about high frequency and how to apply it. About 400 pages and nearly 100 illustrations; price $4.00, postpaid. The Electron Press, 115 East Thirty-first Street, Kansas City, Mo.

High Frequency Model "F" Thompson-Plaster Fischer—Like new, in oak, $350.00. Liberal terms. C. F. Mills, Ridge Building, Kansas City, Mo.

X-Ray Fischer Interrupterless Transformer—Complete equipment. Like new. $350.00. Terms. C. F. Mills, Ridge Building, Kansas City, Mo.

"The Objects of Marriage"—An inspiring booklet by Havelock Ellis concerning the relations between the sexes. 25c a copy, postpaid. Address the Medical Herald office. A free copy with each subscription.

Grover's Handbook of Electro-Therapeutics—By Dr. Burton B. Grover. The last word in Physiotherapy; 450 pages, 111 illustrations; price $4.00, postpaid. Supplied by the Medical Herald and Electro-Therapist, Kansas City, Mo.

Practical Hydrotherapy—By Dr. Curran Pope, Louisville, President Western Electrotherapeutic Association. The most complete work ever published on this subject; illustrated, 600 pages, $5.00, postpaid. Supplied by the Medical Herald and Electro-Therapist, Kansas City, Mo.

Actinic Ray Therapy (new edition)—By T. Howard Plank, M. D., Chicago. A practical treatise for physicians interested in physical therapeutics; illustrated, 160 pages, $5.00, postpaid. Supplied by the Medical Herald and Electro-Therapist, Kansas City, Mo.

Gonorrhea and Impotency—By Dr. Edwin W. Hirsch. Just off the press. Tells the story of how to successfully treat gonorrhea and its complications. Profusely illustrated. Price $3.50. Supplied by the Medical Herald and Electro-Therapist, Kansas City, Mo.

X-Ray and Therapeutic Cabinet—Thomplasto Model E. Cheap. Send for description. C. F. Mills, 543 Ridge Bldg., Kansas City, Mo.

The Mechanics of the Digestive Tract—By Walter C. Alvarez, M.D. (New.) One of the most important treatises on digestion ever issued; 200 pages. See review in December Herald. Price, $3.50. The Electron Press, Kansas City, Mo.

X-Ray Equipment—A Complete Victor X-Ray Equipment; used only a few months; for sale at a bargain. Guaranteed first class in every respect. Address C. B. Fitz, M.D., 110 Curtin Ave., Pittsburgh, Pa.

For Sale—Alpine Sun Lamp, floor stand type for 110 volts D. C. In fine condition. Address Dr. C. R. PerDue. 411 State Life Bldg., Indianapolis, Ind.

Just Off the Press

"Gonorrhea and Impotency"

BY

EDWIN W. HIRSCH, M.D.

Tells the story of how to successfully treat gonorrhea and its complications. Profusely illustrated.

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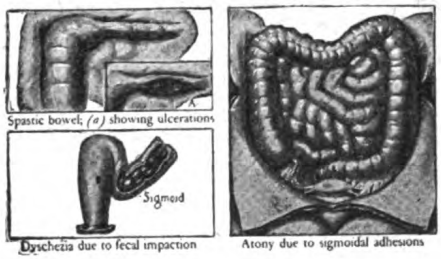
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Vol. XLII SEPTEMBER, 1923 No. 9

Original Contributions
(EXCLUSIVELY FOR THE MEDICAL HERALD)

REPORT OF PHOTOTHERAPY COMMITTEE

By A. J. PACINI, M. D.,
Chairman Department of Biophysical Research
Victor X-Ray Corporation, Chicago

YOU will be surprised to learn that the subject of Phototherapy has sustained a tremendous impetus since your association last met in convention in this city one year ago; and that the center of Therapeutic attraction is the Mercury Vapor Quartz Lamp. There are now over twelve thousand physicians using Ultra Violet energy in the practice of medicine in the civilized countries; and each month America alone is increasing this vast army by about two or three hundred additional Actinotherapists.

There can be but one interpretation to this significant fact; that Ultra Violet energy has been found capable of affording such clinical good as to demand the attention which it so justly merits.

It is possible to divide Actinotherapeutic progress into three types of activity. These are:

1. Clinical,
2. Investigative,
3. Educational.

It would be impossible to report all of the clinical advances that have been claimed for Ultra Violet Therapy; but there are several outstanding reiterations that are so prominently conspicuous as to impel critical consideration.

KRUGER has contributed to the study of the use of the Quartz Lamp, Air Cooled, in the treatment of pulmonary tuberculosis. In a study of thirty-one cases he reached the conclusion that pulmonary tuberculosis is certainly an indication for the use of Biologic or Air Cooled Ultra Violet Radiation, which treatment may of itself be oftentimes sufficient, but should preferably be used together with the usual Sanitorium Therapy incident to such cases.

In commenting upon the Sanitorium treatment of pulmonary tuberculosis, KRUGER very aptly says that markedly better results may be obtained if there be introduced in the Sanitorium handling of pulmonary tuberculosis, the use of Air Cooled Ultra Violet radiation which must supplement the Therapeutic measure already practiced in such institutions.

KRUGER summarizes the physiological effects responsible for the benefit derived in tubercular infection by saying that Ultra Violet energy reduces blood pressure and stimulates nutrition; and also, it exerts a bactericidal effect at the same time that it displays a desirable and analgesic quality. It provokes a subjective sense of well-being, increases the appetite and immeasurably invigorates the lax physiology of the patient. This contributor, in his experience, does not consider hemoptysis to be a contra-indication for the use of Ultra Violet. He concludes his study with the forcible impression that Quartz Lamp Therapy may alone act advantageously in lesser pulmonary tubercular pathologies; but that it assures increased success if it be used conjointly with the usual tubercular remedies already practiced in sanitoria.

Subsequent to the work of HULD SCHINSKY who used Air Cooled Ultra Violet energy in the treatment of infantile calcium dyscrasias, more particularly the various manifestations of rickets, the pediatrists having increasingly utilized Actinic radiation in hospitals, dispensaries, and children's clinics in order to correct the calcium metabolism of infants. It is strikingly remarkable to observe that continental Europe has satisfied itself only in establishing the empiric finding that pertains to the merit of this radiation in the treatment

Read before the Western Electrotherapeutic Association, Kansas City, April 20, 1923.

of rickets; and it remained for America, especially through the brilliant work of ALFRED HESS and many collaborators to inquire specifically into the necessary requirements that must attend the use of Ultra Violet in the cure of rickets.

In this connection it is significant to point out that the studies of HESS were independently investigated by other research workers and appeared for the first time in the journal of this association in October, 1922; so that your society has been active in the world movement that strives for a better understanding of the purpose underlying the use of Ultra Violet energy.

Practically coincident with the study on calcium metabolism elaborated by HESS came the study of TISDALL, of TORONTO, on the effect of Ultra Violet energy on the phosphorus metabolism, more especially the changes suffered by phosphorous metabolism when an individual sustains a fracture. And from Yale and John Hopkin's, the question of mineral metabolism has likewise received investigation both in medicine and in dentistry under the stimulus of the research fostered by SHIPLEY, McCOLLUM, POWERS, PARK, SIMMONDS, GRIEVES and others.

It is easy to present a general resume of the significance of the meaning of these studies, which amounts to this; that biologic or Air Cooled Ultra Violet energy is certain in increasing the calcium and phosphorous metabolism of the human enonomy. Consequently, it possesses a distinct and fundamental position in the Therapy of metabolic calcium and phosphorous disorders represented by rickets, scrofula, scurvy, pathology of bone such as osteo-malacia, and achondroplasia, Lobstein's disease, osteo-genesis imperfecta, and also in the traumatically induced dissolution of bone shafts as by fracture or injury.

More recently it has been observed that many diseases such as tuberculosis and the cachexia of cancer are associated with a deficiency of calcium in the blood. It is impossible adequately to estimate the tremendous clinical import conveyed by this finding. For example, the brilliant work of Goldzieher shows that inoculable cancer refuses to infect in the presence of a high content of calcium in the blood; and the people suffering from cancer very generally show an abnormally low content of calcium in the blood. From which it is plainly visualized that part of the treatment of cancer consists in the radiation of the body with air cooled ultra violet energy to insure a high calcium content in the blood and thereby minimize the possibility of cancer metastasis.

No less important than the study of calcium and p[illegible]rous metabolism is the study of the effect of ultra violet energy in the iron metabolism involving the physiology of the red blood cells. It now appears to be definitely established that biologic ultra violet radiation displayed over the body induces an increased capacity for the assimilation of iron that results in the formation of more red blood cells and in the raising of the hemoglobin content. This measure is therefore uniquely indicated wherever a secondary anemia is present, the uniqueness resting with the fact that the iron metabolism may be augmented without interfering with any other physiologic function such as must be interfered with if the same result is sought through the oral administration of iron compounds that lead to possible costiveness.

Under progress that may be called investigative, it is important to see that the American classification of ultra violet equipment into air cooled biologic and water cooled bactericidal or abiotic energy has received the scientific indorsement not only of the leading centers of this country, but has been corroborated and accepted also in France and in Italy. In this connection it is possible to furnish a summary given by Professor Charles Benoit, Paris, who says:

"From a biologic point of view the ultra violet and violet radiations given by quartz lamps may be divided into 'abiotic' and 'eubotic' rays which include respectively those having a short or medium, and those having a long wave length. The first have a powerful oxidizing action on the tissues and may even produce necrosis. The others are only slightly penetrating, but have nevertheless an effect even on deep organs. The general effects produced by the ultra violet rays are that through their action on the more superficial capillaries, the oxygen content of the blood and the number of red corpuscles is increased while the amount of urea is diminished; that the superficial cells of the skin are slightly oxidized and subjected to a real ionization which favors their development, and that the terminal ramifications of the nerves in the skin are stimulated, this causing by reflex action a diminuton of the blood pressure, a slowing of the heart rate, and an acceleration of respiration.

"Abiotic radiations are indicated whenever it is necessary to destroy or irritate a limited area of the skin (atonic sores, varicose ulcers, psoriasis, lupus, eczema, alopecia areata, acne). Eubiotic radiations, on the other hand, are used whenever a modification of the general condition is sought, or when a local lesion related to a general disease is to be treated. The first category includes anemias, albuminuria (especially the orthostatic variety-, gastro-hepatic diabetes, arthritism, scrofula, rickets, asthenia, arterial hypertension. Surgical tu-

berculosis affections are particularly benefited by this treatment; also extensive wounds, bone fistulas, burns, frost bites, generalized eczema, pruritus, herpes and purpura."

This study of Benoit which appeared in December of 1922 coincides with striking sameness to a similar study presented before this association in April, 1922, where ultra violet energy was presented from the viewpoint of biology and classified as biologic and abiotic, referring to the long and short wave lengths dominately emitted by air cooled and water cooled ultra violet lamps, respectively.

The stronger bactericidal qualities of ultra violet energy, particularly the energy emitted by the water cooled lamp, has been again investigated and reported in the bulletin of the John Hopkins Hospital by Bayne-Jones and Van der Lingen, for January, 1923. There is no longer any challenge to this fact. It stands clearly demonstrated that the short wave lengths of ultra violet energy are so intensely active as to be superficial and bactericidal in their effect.

Under educational progress there must be considered the unusual influx of ultra violet studies in the medical literature; and in this connection certain journals stand out in conspicuous prominence. The Medical Herald and Electro Therapist, which is the official organ of this society, has carried a number of articles of ultra violet energy that have been quoted in medical literature throughout the world. The Journal of Radiology, the official organ of the radiologic society of North America, published at Omaha, Neb., has presented some fundamental inquiries in the biophysics of ultra violet energy, which studies have served as a ground work for the scientific superstructure of quartz lamp therapy. The American Journal of Electro Therapy and Radiology, under the editorship of Dr. William Benham Snow, has presented important contributions to clinical actinotherapy. Many state and county society journals have offered, from time to time, the clinical experience of ultra violet energy users. The journal of the American Medical Association has presented two important articles in the past year, one on the use of ultra violet energy in diseases of the skin and the other on the radiation responsible for the cure of rickets. In addition to these contributions, the Journal of the American Medical Association has commented editorially upon the progress that scientific ultra violet therapy is obviously undergoing. The International Medical and Surgical Survey in its section devoted to Roentgenology and radiotherapy, furnishes an excellent foreign and American abstract service that contains many significant studies on the use of ultra violet energy. A similar abstract service that is highly commendable is the one furnished in the Journal of Radiology in the section devoted to Abstracts and Reviews. In Europe one Italian book and two French books devoted to ultra violet energy have made their appearance. In America, Dr. Plank's manual has passed to a third edition and there has appeared also a new outline of ultra violet therapy that has for its purpose the attack of the subject from the viewpoint of biophysics.*

Many interests devoted to scientific research are giving much attention to the exploitation of this radiation, one interest having established a department of biophysical research devoted entirely to investigations such as will make for a proper progress of radiotherapy.

Non-medical interests have been no less alert in this field of endeavor; and it is possible to mention the text book just published by D. Van Nostrand and Company of New York, under the authorship of Luckiesh of the Nela Research Laboratory, Nela Park.

In conclusion, your committee has to report that the stimulus imparted to ultra violet energy and originated from the untiring pioneering of the present president of this association, has awakened the clinical and scientific world of two hemispheres to the point where in less than eighteen months an imperfectly understood study in energy has become a scientifically evaluated and important instrument in the world of therapeutic accomplishment. It has been truly said that the development of ultra violet equipment through engineering research, which came in consequence to the stimulus imported by these endeavors has marked a second epoch in the history of science—one commensurate with and just as striking as the epoch that was ushered into science by the advent of the immortal Coolidge tube.

THE AUTOMOBILE CLAIMS TWO MORE MEMBERS

On June 14th Dr. Edward P. Pitts, Atchison, Kansas, started to drive to San Francisco to attend the A. M. A. meeting, accompanied by his wife aud son. The first day out the doctor's car collided with a truck at a "blind" crossing, and he was instantly killed. Dr. Pitts had carried one policy in the P. C. A. since 1907 and he took a second policy in 1921, thus providing $10,000 for his family, which was promptly paid.

Dr. J. M. Winfield, Brooklyn, New York, had been a member of the P. C. A. since 1906. On April 10, 1923, the doctor was knocked down by a passing automobile just as he stepped from the curb to cross the street, and died ten days later of a fractured skull.

A check for $5,000 was mailed to the widow upon receipt of proofs of claim.

According to the government statistics, the number of deaths caused by automobiles is increasing. It is a real hazard to which everyone is daily exposed, whether or not he owns or drives a car.—P. C. A. Bulletin.

THE STATUS OF THE DEVIATED SEPTUM AS AN ETIOLOGIC FACTOR IN CERTAIN DISEASES AND REFLEX SYMPTOMS

MANFORD R. WALTZ, M. D.,
Seattle, Wash.

THIS paper was prompted by a review of the histories, examinations, operations and post-operative questionnaires of a series of cases operated on by a submucus resection at the Cooper Clinic. In it I wish to sum up and in a way classify the data brought out in this review and to emphasize certain conditions in which the deviated septum acts as a primary or a secondary factor in the etiology of the existing pathology.

Our clinic cases are nearly all subjected to a routine nose and throat examination and in this way we have found pathology unknown to the patient, which, when corrected, has resulted in a marked improvement or cure of the symptoms complained of. Especially is this true of our medical cases with respiratory symptoms and as we see more and more of these cases, we are coming to insist on the correction of the pathology found as the first step in their treatment.

Fundamentally, the deviated septum is mechanical in its action, producing obstruction to normal nasal or respiratory functions or pressure on adjacent structures, and the intimate relationship between the septum, turbinates, accessory sinuses, eyes and their closely interwoven blood and nerve supply is greatly emphasized in the pathologic changes having the deviated septum as an etiologic factor. This associated pathology in adjacent structures is directly dependent on the mechanical action of the deviated septum or this action plus infection and the resulting symptoms may so dominate the attention of the patient that the primary cause is not suspected, and it is for this reason that these cases so many times first seek relief from the internist or others than the rhinologist. Only close cooperation between the internist and rhinologist with a thorough analysis of the symptoms and findings and a comprehensive knowledge of the pathology involved will bring relief to these cases.

Nasal obstruction unaccompanied by associated pathology occurred in but about 4 per cent of our cases and about 8 per cent complained of the associated pathology alone. The rest of the cases complained of both the obstructive symptoms plus the associated pathology, with the obstructive symptoms considered of varying importance by the patients. The associated pathology symptoms under our consideration are, therefore, those due to obstruction of normal nasal and respiratory functions, pressure on contiguous structures or infection or any combination of these.

The pathology originated by obstruction to normal nasal functions is that of deficient areation of the upper nasal passages and sinuses and is clinically evidenced chiefly by the symptoms of pain, headache localized or reflex in character, eye strain, mental depression, dizziness and voice changes. Closely associated to the obstructive symptoms and indistinguishable from them are those of pressure on contiguous structures, which is also clinically manifested by symptoms of pain in some form of headache or facial neuralgia. This is due to pressure on the nerve filiments of the trigeminous or those from the sphenopalatine ganglion.

Nasal obstruction also produces conditions ideal for the development of infection in the nose and infections thus produced is evidenced clinically in many ways; directly by symptoms of nasal catarrh, acute rhinitis, acute and chronic sinus infections with its chain of symptoms and complications, turbinal hypertrophy and hyperplasia, tubal catarrh producing middle ear deafness and noises in the head and irritation and repeated acute infections of the upper and lower respiratory tract; indirectly by its influence on the different chronic respiratory diseases with more especial reference to the bronchial asthma, chronic bronchitis and incipient tuberculosis.

That the deviated septum is an etiologic factor in these conditions is conclusively proven by the fulfilling of two conditions. First, a deviation of the septum existed in these cases; second, after correction of the deviation, the symptoms and conditions either ceased entirely or they were greatly modified.

The septal pathology producing these conditions may be of any type or degree, but I wish to emphasize the role played by the deviation of slight degree as seen in the high deviations or septal thickenings. These are often missed or their value underestimated, but after a thorough analysis we often find in them the basic cause for the conditions which we recognize as deficient nasal and sinus areation and with their correction a complete cessation of all symptoms complained of. Illustrating this: A young lady, head of a store department and a vocal student, came to me for a thorough eye examination. She complained of intense head pains and headaches over the frontal and occipital regions, pulsating and throbbing in character, coming on in attacks any time during the day or night, but greatly increased by

Read before the Medical Association of the Southwest, Hot Springs, Ark., October 16-18, 1922.

use of the eyes or mental effort. In the preceeding six months her glasses had been changed twice with no benefit, but because of the apparent connection between the use of her eyes and the increase in her symptoms, she was sure the eyes were the cause of the trouble. Examination showed: Vision 20/20 both eyes; retinoscopy under homatropine gave half a diopter less sphere than she was wearing: nose showed a high bilateral thickening of the cartilaginous septum with a slight deviation to the right and with contact between the middle turbinates and the septum. No acute or chronic infection demonstrated. Change of glasses gave no relief but a 15 per cent argyrol tampon, repeatedly tried, in each case lessened her symptoms considerably. Because of the septal pathology found, though slight, and the relief of symptoms after our tampons a high submucus resection was advised. This we did with the following results obtained immediately after the nose became quiet and persisting over several months to the present time: Complete relief from the headaches and eye strain complained of; relief from her mental depression and the gaining of quality or timbre in her voice with a distinct rise in her upper register, both of which she and her teacher had long striven for but had never before been able to attain.

Illustrating another class: A school boy aged 16, referred to me by our medical department, complained of frequently repeated attacks of head colds which were long drawn out and were accompanied by nasal obstruction, chronic bronchitis and asthma. These attacks had been occuring for the last three years and the asthma which was his chief concern was increasing in severity and duration and because of this he was losing a great deal of time from his school. Examination revealed a marked deviation of the septum to the left in the form of a ridge along crest of the vomar ending in a sharp spur which was adherant to the middle turbinate posteriorly. A submucus resection was performed with a complete resection of the deviation and spur, and in over a year that has elapsed since then he reports these results: But three to four mild head colds of short duration unaccompanied by bronchitis or asthma.

I do not wish to convey the idea that the deviated septum is the cause of the asthmas or bronchitises, but I do wish to state and emphasize that in the role played by the deviated septum in the production of the secondary pathology which in turn is responsible for many cases of bronchitis and asthma, it becomes an important etiologic factor in these conditions.

Similarly, we see the same relationship between the deviated septum and other chronic respiratory diseases as incipient tuberculosis and I have several times observed a sudden and decided change for the better in these cases following a submucus resection.

Another point I wish to bring out before closing. If we accept the statement that he deviated septum acts as a primary factor in the etiology of what I have termed the secondary pathology, and which I have proven to be correct to my own satisfaction if not to others, we must be consistent and recognize the necessity of first correcting the primary factor if we would expect the best results. I refer to the unscientific practice of doing the easily performed turbinectomy or turbinal cautery in preference to the harder, more technical and painstaking problem of correcting the septal deformity. I say this because I have often seen turbinal hyperplasia and even hypertrophies, which respond but little to cocaine or adrenaline, receed after a complete submucus resection. Bearing this out, our histories show about 30 per cent of the cases had had turbinectomies, repeated turbinal cauterizations or incomplete resections done previous to our work while in the last three years I can recall but very few cases on whom I have had to do a post operative turbinectomy or cauterixation. An exception to this is in the case of the deviated septum and an hypertrophied middle turbinate due to the inclusion in the turbinate of ethmoidal cells. In these cases I correct the septal deviations and do a partial turbinal excision at the same time so that the treatment may go to the basic etiology.

My closing thought is this: In the presence of chronic head or respiratory symptoms, the relationship between these and probable septal pathology should have our careful and analytical consideration as being an important factor in the etiology of these conditions.

Now comes the "cure for General Paresis," by a serum, obtained from patients with tertian malaria, and developed in Washington, D. C., at St. Elizabeth hospital, the government hospital for the insane. Don't it just keep a doctor standing on tip-toe? It's great!

"The psychiarist can play but a small part in prophylaxis in the mental field. The family physician can accomplish much. He has ever been the confessor. He always will be. His ability to advise will be enhanced by the greater knowledge that he is accumulating as the years pass, of the importance of the mental aspect in all cases. This is the field of greatest possibility today in preventive medicine." —Ross McC. Chapman, in Southern Medical Journal, November, 1922.

THE INTER-CRANIAL COMPLICATIONS OF THE NASAL ACCESSORY SINUS DISEASES

By D. R. DORENTE, M. D.,
Fort Smith, Ark.

AS befits the supreme product of human evolution, the brain is all but invulnerably guarded against the invasion of disease from without. Among the vulnerable points of attack are the accessory sinuses of the nose.

1. In searching the literature, I find that from the various clinics throughout the country, it is reported, that nasal accessory sinus disease is much more prevalent than is generally supposed. Statistics show that post-mortem examinations reveal the startling fact that in all cases regardless of the causes of death from 17 to 47 per cent sinus suppuration had been present. It may be that the high statistics given can be accounted for by considering the action of the ciliary epithelium lining of the sinuses. During the last hours of life the cilia lose their power of waving, thus failing to remove toward the sinus door, the secretions, resulting in the accumulation found at post-mortem.

The nose is the ante-chamber of breath. Here inspired air is cleansed, warmed, rarefied and prepared for entrance into the lungs. The nasal cavities are, when normal, geometrically constant in form and capacity. Any deviation from either form or capacity has far-reaching effects of disturbance upon the general health of the individual, a fact of comparatively recent recognition in medicine.

Surrounding the nasal cavities proper there is a set of pneumatic sinuses which have open and direct communication with the air chambers of the nose itself. These accessory sinuses are principally concerned with the breath of phonation, having to do with resonance and the formation of overtones. The vibrant breath of voice is moulded by the throat, the pharynx, the mouth and the nose; the resonance occurs in the sounding vaults of the accessory sinuses.

For the accomplishment of their function, the accessory sinuses are seated at strategic points with regard to the air-stream.

The frontal sinus, a small triangular cavity, is situated between the plates of the frontal bone, just above the inner angle of the orbit of the eye. Of pyramidal shape, and hence in mathematical relation to the air-column, the frontal sinus is divided into two smaller cavities by a delicate septum of bone. The frontosasal opening (the ostium frontale) lies in relation to this bony dividing wall and is situated in the lowest part of the sinus floor.

The ethmoidal sinus is contained in the lateral body of the ethmoid bone. Here the cells are multiple, the ethmoid sinus being partitioned off into small cavities by walls of bony plates.

The maxillary sinus (the antrum of Highmore) is of pyramidal form also, and is situated in the superior maxillary bone. A portion of the superior dental area in close relationship to the maxillary sinus offtimes is responsible for infection of this sinus.

The sphenoid sinus occupies the anterior portion of the sphenoid bone. It is most intimately placed with regard to the cranial, orbital and nasal cavities.

The lining membranes of the accessory sinuses are continuous with that of the mucous membrane of the nasal cavity—a muco-periosteal covering, the mucosa of which is lined with columnar ciliated epithelium.

Since the nose functions also as the organ of special sense, the nerve distribution of its cavity consists of the olfactory (a nerve of specific energy), and also of general sensory nerves.

From three different sources, the olfactory nerve arises in an external branch beginning deep in the substance of the middle lobe of the cerebrum; in a middle root from the caruncula annularis, and an internal root which springs from the inner, posterior part of the anterior lobe of the cerebrum. From these three points a branch unite; and along the under surface of the brain, they run forward as a band until they reach the cribriform plate of the ethmoid where they assume the rounded form of the olfactory bulb. Then, from the lower surface of the olfactory bulb, nerve filments are threaded through foramina of the cribriform plate and by division and subdivision, these filaments innervate the mucous membrances of the nasal cavity.

It is clear that through the ethmoid veins and arteries, there is direct communication between the brain and nasal mucosa. There is direct communication also between the veins and lymphatics of the dura and the nasal mucous membranes. It has furthermore been shown that a considerable portion of the oenous blood from the anterior sinus finds its way into the ophthalmic vein through the supera-orbital, frontal and ethmoid veins. [2] It is abundantly evident that there is direct venous communication between the sinuses and both the eye and the brain. Veins of the ethmoi are tributary to the superior and sometimes to the inferior ophthalmic veins, and the veins of the frontal sinus are in communication with the longitudinal sinus by anastomosis.

Read before the Medical Association of the Southwest, Hot Springs, Ark., October 16-18, 1922.

Hence, a primary cause of the inter-cranial omplication in diseases of the accessory nasal avities, is that of anatomical relationship. By ieans of veins, nerves, lymphatics, an infec- on of the sinuses may pass directly to the rain.

Besides the anatomical contact which exists etween the brain and sinuses in normal struc- ire, contact may exist by reason of defects i the bony walls that separate the brain cavity om the nasal sinuses. Where dehiscence oc- urs in the orbital process, the mucosa of the ontal sinus is in direct contact with the dura. f the defect is in the plate of the orbit, the peri- rbital tissues lie immediately against the ucus membrane of the sinus. Defect in any art of the orbital walls forms a means of ntry to the brain. Contact between the brain nd the ethmoid sinus frequently occurs in de- cts of the **lamina papyracea,** tending to the rmation of orbital abscess.

Defects in the superior and lateral walls eparating the sphenoid from the dura are of ore frequent occurrence than any other cause f brain complications in sinus diseases.

Where the complication arises from patho- gical causes, it is due either to some obstruc- ion to free drainage of mucous secretions or infection by micro-organisms. In the final nalysis, brain complications of sinus diseases re seldom due to a single cause, but rather general conditions which form a setting from his tragedy. For "complications occur much nore frequently in chronic than in acute in- lammations."[2]

Whatever the means by which the disease f a sinus may have involved the brain, the oints of attack are three: the menings, caus- ig any one of the forms of meningitis; [3]ab- esses within or without the dura, or ab- esses within the lobes themselves, and throm- oplebitis of the venous sinuses. The range pathological involvement may extend from insinusitis with meningitis to a focal abscess om disease in the sinus. Meningitis may be ccompaned by primary phlebitis and second- y thrombosis.

The evidence that cerebral complications ve arisen in cases of sinus diseases, is given symptoms which are usual in brain affec- ons. The most marked of these are severe adache, elevation of temperature, dizziness, ausea, vomiting, convulsions and delirium. e so-called irritative symptoms being pres- t. At the beginning of cerebral complica- ons, the walls of the sinus become edematus d cause a distorted appearance of the face. On of the rarest and most deadly brain di- ase arising from infection of the nasal ac- ssory sinuses is diffuse cranial osteo-myelitis. aclay [3] describes it as "a purulent rarefying osteitis which eventually produces more or less complete destruction of all the bone ele- ments." He reports three cases (only one in full) two of which were post operative and one spontaneous. The spontaneous case and one of the post-operative cases recovered. In the latter case he performed a series of six op- erations for the removal of necrotic bone tissue and cleansing of the wound. Eight months elapsed before Maclay made his report and he believes the case is cured. In reporting this case, special attention is called to the char- acteristic puffy or circumscribed edematous swelling of the scalp and eyelids which "should complete the diagonosis and call for imme- diate action."

Brown's case was marked by increasing at- tacks of dull headache, slow cerebration and subnormal temperature. This case is to special interest as the multiple brain abscesses were caused at a radical frontal sinus operation in which the floor and contents were removed (March 2, 1921). At that time there was no sign of necrotic area on the posterior wall. For two months following this operation the symp- toms Brown describes were of increasing oc- currence and on the following May 23rd, a second operation was performed in which the dura was pierced and 45 c. c. of greenish yellow pus withdrawn.

The patient died on June 3, 1921. Post-mor- tem examination revealed three large abscess cavities which had practically destroyed the left frontal lobe. This complication had fol- lowed frontal sinus supporation.

Statistics on inter-cranial complications of sinus diseases are notable for their scarcity. The most recent are those Yerger [4] who made a determined effort to arrive at some conclusion regarding these complications by investigating the cases occuring at the Cook County Hos- pital from 1911 to 1921. Yerger's report ap- peared in the winter of 1921 and is here sum- marized.

Of 290,000 cases treated at the Cook County Hospital, the incidence of sinusitis was 0.13%. The frontal sinus was involved in 187 cases (87%): the maxillary in 147 (38%); the ethmoid in 48 cases (12%); the sphemoid in 9 cases (2%).

The sinusities cases which developed inter cranial complications (16 cases in all for the period of ten years) ranged in order of fre- quency as follows, 1st, the sphenoid in 55%; 2nd, the ethmoid in 19%; 3rd, the frontal in 5%; 4th, the maxillary sinus in 1%. That is, the sphenoid cases had inter-cranial complica- tions in 5 out of a total of 9 cases; the ethmoid had 9 out of a total of 48 cases; the frontal sinus had 9 out of a total of 187 cases and the

maxillary sinus had 2 out of a total of 147 cases. The sphenoid group, although less frequently found diseases than any other sinus (2%) yet gave the highest percentage (55%) of inter-cranial complications. Diffuse leptomeningitis was the most frequent complication in this series, occurring in 14 of the 16 cases 87.5%. The morality was 100%. Only six of the cases were operated upon; four of these developed meningitis, probably as a post-operative complication.

The literature contains but rare reports of recovery from this complication of sinus disease; the therapeutic measures recommended are oftenest operative though [2] Skillern and [3] Maclay among others refer to vaccine therapy as of value.

White states that poor ventilation and faulty drainage of secretions are all important predisposing factors in the etiology of accessory sinus disease. This places sinusitis and its complications among the preventable diseases.

Summary:—Cerebral complications in nasal accessory sinus diseases occurs by extension by means of continuous tissues of nerves or blood-vessels. The pathological condition may be one of toxemia, focal infection or hyperplasia.

The sphenoid cavity is less frequently attacked than any other sinus, but gives the highest percentage of inter-cranial complications. Diffuse lepto-meningitis is the most frequent complication.

Argument:—It must be true that the normal sinus combats the invasion of bacteria in two ways. 1st. By the action of the cilia. 2nd. By the inhibitory power of the secretion of the glands situated in the sinus mucosa. Suppurative inflammation of the sinuses are the result of bacterial invasion, but whether the suppuration is strictly primary or whether the restricting power of the sinus membrane are first lowered by some systemic disease is a question.

If the suppuration is the result of direct invasion, one of four diseases is probably the cause. Influenza, Croupous pneumonia, Diphtheria or Erysipelas.

References

1. Skillern, R. H.

2. Skillern, R. H.: The catarrhal and suppurative diseases of the accessory sinuses of the nose. Ed. 3 Phila. J. B. Lippincott Co., 1920.

3. Maclay, N.: Cranial osteo-myelitis complicating accessory sinus suppuration. J. Laryngol. & Otol. 36:478, (Oct.) 1921.

5. Yerger, C. F.: Inter-cranial complications of nasal accessory sinus disease. A report of 16 cases. Illinois M. J. 40:395, (Nov.) 1921.

4. Brown, R. G.: A case of frontal sinus supporation followed by multiple frontal lobe abcesses. M. J. Australia 2:313 (Oct. 15) 1921.

6. White, L. E.: The etology and pathology of loss of vision from the accessory sinuses. Laryngoscope 32:415 (June) 1922.

HIGH FREQUENCY CURRENTS

By OMAR T. CRUIKSHANK, M. D., Pittsburgh, Pa., and FRANK C. FULLER, M. D., Leavenworth, Kansas

MEMBERS of the Western Electro-Therapeutic Society—In connection with the Annual Report on High Frequency currents, we would like to demonstrate a new device for producing high frequency currents, worked out by Dr. Omar T. Cruikshank of Pittsburgh. This device as presented is intended for desiccation treatments, and is especially useful for superficial work in the treatment of moles, neivi, hypoderma keratosis, warts, etc. The especial advantage of this device is the extreme frequency, **almost twelve million cycles per second,** at least ten times the frequency of any machine on the market. This means the only sensation is from the heat produced, as the sensory nerves will not be affected at all by a current of such a frequency, which makes it possible to remove small growths with very little discomfort. The machine is light and very easily portable, absolutely quiet, as the oscillations are produced by vacuum power tubes instead of spark gaps, and by using small condensers, wth a minimum inductance, we obtain an extremely high frequency, with a very low voltage and amperage enough for the work intended.

By using larger tubes a machine can be built that will give four or five amperes through a patient. This means a real portable machine with ample current for the very heaviest treatments we care to use, and the entire machine will weigh less than thirty pounds. These machines are now in process of construction and will soon be available.

During the last year several very good books have been placed on the market:—

1. High Frequency Practice by Dr. Burton Baker Grover, our ex-president.

2. Electro-Coagulation and Its Uses: a very instructive paper by our President, deserves special mention.

3. In a small book Gonorrhea and Impotency Dr. Hirsch gives some good points of the use of High Frequency in a Specialty.

There are several very valuable treatments with high frequency currents, to which I would like to call your attention. The results ob-

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tained in Brights Disease, Diabetes, Pneumonia, Cystitis, and Anaemia, are really wonderful. So it may be time well spent to review a techique that has proved successful in these conditions. Diathermy is indicated and may be used by placing an ⅛ inch aluminum plate 12x14 under the patient, connected to one side of the d'arsonval current, with a four or five inch metal disk as the other electrode, passing 1000 to 1500 ma of current until the patient complains it is hot, shut off current, move the small disk to a new spot, and repeat until the entire affected area has been well warmed up. In the case of pneumonia, this means the whole chest. For Diabetes and Brights Disease have the large plat over the lumbar and lower dorsal region. Start with the four or five inch disk (disk depending on the size of patient) over the epigastrium, when hot, shut off current, and move disk over the spleen, then over lower edge of liver, left illiac region, right illiac region, then over bladder, then over umbilical region, and finish by treating epigastric region.

For Cystitis and Anaemia, use the same treatment for half the time, then have the patient sit on the large plate, treating the bladder by heating the disk over the bladder several times, and for the Anaemia, treating the spleen and the long bones of the legs especially. This will increase the Hemiglobin very rapidly.

In one case treated by the Author, the Hemaglobin was increased 40 points in fifteen treatments. Practically the same results may be obtained by using an auto-condensation chair in place of the large metal plate, with the advantage that the patient does not have to remove so much of the clothing, as the metal plate must be in contact with the bare skin, and the only precaution necessary is to be sure no clothing is under the edge of the disk.

In selecting a disk use the largest disk that can be applied, to make good contact. When it is advisable to concentrate the current on the chest, as in lobar pneumonia, a five inch disk on the back, with a three or four inch disk in front, having the affected area between the disks, gives very good results.

If sufficient amperage is not available, more time must be given, and the treatments repeated more frequently, five or six treatments are usually indicated the first day, two or three the next, and one or more until relieved.

In February number American Journal of Electrotherapeutics, Dr. Wm. Benham Snow gives a report of the Committee on the Standardization of Physical Therapeutic Measures —That I would like to add to our report—

High Frequency Currents

Physiological Effects: Physiological hyperemia—an increased influx of arterial blood into the tissues in response of the reflexes to heat—is more effectively produced by the direct d'Arsonval current—diathermy—than otherwise, i. e., by any other method either electrical or as derived from other sources.

THE EFFECTS OF HYPEREMIA, however produced, are (1) increased phagocytosis, (2) increased metabolism, (3) increased nutrition. Hyperemia produced in such a manner as to time and intensity that it will persist for from two to four hours, is one of the most valuable of all therapeutic measures, and is applicable to the treatment of local infection, when pus is not present, in early stasis, myalgia, and all conditions of defective metabolism. Hyperemia is produced also with high frequency currents by allied methods which cause local irritation, and by other methods, including local dry heat, applications of radiant energy, as radiant light and heat, and by other electrical currents of sufficient amperage and frequency.

MODES OF HIGH FREQUENCY STIMULATION: (1) The effleuve—The effleuve from a high potential high frequency source produces hyperemia to a depth in proportion to the amperage and potential of the discharge; the degree of dispersion, other things being equal, depending upon the distance of the discharging point from the surface of the body, the depth depending also upon the capacity of the receiving body, and the directness with which the current from the discharging pole is conveyed to the body.

(2) The applications from vacuum tubes and nonvacuum elestrodes are governed by the same laws as to the amperage, potential and directness of discharge, as with the effleuve, but are varied by the extent of the surface content in inducing local effects, other things being equal. The larger the surface of the electrode the great the volume that can be tolerated, or the less the relative local effect; that is, with the dispersion of the same discharge from a smaller surface.

(3) The static resonator effleuve partakes also of the mechanical effects of the static currents. It has a higher voltage and produces a deeper hyperemia as compared with the resonator effleuve from other sources. Desquamation may be produced by the ultraviolet effects of strong discharges from static and hifh frequency sources.

(4) Hyperemia is produced by "diathermy" or direct and indirect d'Arsonvalization. Direct d'Arsonvalization, administered by placing moistened metal electrodes on opposite

surfaces of the body or part, passes the current directly through the tissues, producing heat of approximately uniform temperatures in the path of the current, with a relatively even induction of hypermia in the tissues in the direct path between the two electrodes.

The indirect method is applied with one electrode placed upon the surface of the body and varies with the volume or capacity of the subject, other things being equal. The effect may be accentuated by placing the patient upon an auto-condensation couch and varied by the thickness of dielectric—the thinner the dielectric or insulated distance from the opposite pole of the current the greater the heat effect, other things being equal. The current so administered diverges from the surface of the active electrode throughout the body.

Therapeutic Indications of the High Frequency Current

(1) AS AFFECTING METABOLISM. (1) Direct stimulation is produced by action on the end nerve plates, and remote effects by the reflex responses to peripheral stimulation as by the application or an effleuve or resonator spark, or vacuum tube discharge directly over the spinal centers, or to the periphery effecting responses as by other stimuli, and coincidently affecting the underlying structures relative to the volume of current and the receiving capacity.

(2) Mechanical effects with increased activity of the cells are produced during the application of auto-condensation, auto-conduction, or any method in which the body, insulated, receives its electrical charge from one side or from both, in the path, when the current is passed between electrodes.

(3) The increased heat conveyed throughout the tissues, by heating the blood locally, accelerates the general activity of the circulation, relaxes the tissues locally, so relieving tension and pain, and awakens to function the cell structure wherever stimulated. This is evidenced by the increased activity of the functions of the glandular organs of the body, as of the skin and kidneys which are readily demonstrable.

(4) Lowering of arterial tension by the methods of auto-condensation, or auto-conduction is effected by the induction of general relaxation of the arterial system either due to the general heating through the circulation or the effects of the current on the vaso-motor mechanism, central and peripheral, which permits a freer flow of blood to, and through the tissues, with increase of local and general metabolism and nutrition.

11. AS AFFECTING NUTRITION. Improvement of the general metabolism: The increase of both the anabolic and catabolic processes is remarkable in parts to which the bipolar method of high-frequency—diathermy—is applied, and also, general but with less pronounced systemic effect than by the auto-condensation method. Varying degrees of effect are derived from either method depending upon the dosage and physical condition of the patient. Secondary effects, as previously shown are also produced throughout the organism by the influences of the accelerated circulation of the heated blood stream.

111. ANTISEPTIC EFFECTS.—(1) Whenever the tissues are rendered hyperemic by means of the bipolar d'Arsonval current, as affecting the tissues between the two electrodes, or whenever the tissues, to varying depths, are rendered hyperemic by local stimulation, the increased quantity of blood conveyed into an infected part with a relative increase in the number of phagocytes carried in the greater volume of blood so conveyed into the tissues is clinically demonstrated to facilitate the destruction of the germs. The effects of the heat upon some forms of bacteria, notably the gonocci is to destroy them. It has been claimed, furthermore, by some observers that increased phagocytosis with increase in the number of phagocytes occurs locally in the immediate field as well.

(2) Another effect unfavorable locally to germ life is the antiseptic action of the nitrous oxide gases, ozone, and the luminous or ultraviolet radiations, produced on or near the surface of application, when the vacuum tubes, nonvacuum electrodes, and effleuves are applied to superficial infection.

(3) By the effect of the high frequency current in increasing the oxidizing functions of the body.

IV. Upon the blood pressure—Hypertension is reduced by the use of the high frequency currents, by either the auto-condensation or auto-conduction method, or by local stimulation over the vasomotor spinal centers. These methods effect a dilatation of the arterial system, without causing any cardiac depression. The blood pressure will as a rule be thus lowered from 10 to 50 millimeters of mercury by short administrations of not too great current strength in most cases of uncomplicated hypertension. Too large doses over too long a period will often cause a reaction with a rise in blood pressure.

Surgical Uses of the High Frequency Currents

These methods comprise (1) stimulation, (2) desiccation, (3) incineration, (4) carbonization, and (5) coagulation.

METHOD BY STIMULATION—This method is administered from a solenoid: the discharges employed are properly a directional

current not unlike a nonground static spark when administered from the oudin terminal of a solenoid wound to deliver a potential measured by successive sparks approximately three or four inches in length. The sparks are applied to the open surface following operation in malignant cases with the intent of producing a degree of heat that will seal off the lympathics and also destroy the microscopic cancer cells of lower vitality than the normal cells left in the field of operation after removal of the microscopic cancer growth.

METHOD OF DESICCATION, also designated endothermy: This method is produced by short very high frequency sparks from a properly controlled high frequency transformer. A high potential current of very high frequency and low amperage is required, producing, as the name implies, a destructive drying of the tissues without incineration. It is best administered from a very fine metal point, and is employed for the removal of fairly extensive malignant processes even involving the bone, minor conditions, as warts, moles, keratoses, superficial epitheliomata, lupus-vulgaris, enlarged tonsils and hemorrhoids.

Incineration is produced in the same manner as desiccation, but with current discharges of greater amperage which distinctly carbonize the tissues. It may be used where destruction of tissues is desired, the method has been generally displaced by the desiccation method, except by those unfamiliar with the latter.

Carbonization is produced by a still more powerful current and with electrodes of varying sizes applied over the tissues to be destroyed, employing the current from a high frequency source of sufficient energy to produce in a given time the desired effect to a requisite depth in the tissues. It is used in the same manner as the preceding for deeper more extensive effects, and is employed for destruction of cancerous growths of varying extents. It is commonly termed the Doyon method.

DISPERSAL

What will become of me now I am dead,
For my heart divided and went two ways,
Devil-driven, angel-led,
Bewitched, bewildered all my days?

Angel from fiend I cannot tell,
Twin shapes, alert, intent to fly:
One goes to heaven, one to hell,
And I—I know not which is I.

—Aline Kilmer in the Outlook.

SOME CORNEAL INVOLVEMENTS

By ROBT. CALDWELL, M. D., F. A. C. S.

THE absolute transparency of the cornea is so important to distinct vision, and after effects of any corneal involvement that penetrates deeper than the epithelial layer so detrimental to perfect sight, that I doubt if any other eye affection gives us more worry. When we consider the nutrition of the cornea we wonder how we get by as well as we do. Leber, who made the nutrition of the eye a life study, denies the existence of any streams of lymph circulating in open channels through the cornea. Mr. J. V. Patterson, British Medical Journal, has the following to say on the above: "The main supply of nutrition of the cornea probably comes by diffusion processes from the vascular zone at its margin, and the leucocytes which invade the cornea in all severe inflammatory processes have for the most part the same source of origin. Thus contradicting the old idea of lymph channels. These statements at once show us the importance of our subject, both from the standpoint of healing and regeneration, and the disadvantage nature has put us to in the rebuilding.

This paper is not supposed to be a treatise on diseases of the cornea, as that would demand a text book. Neither is it to be an exhaustive study of one particular form of keratitis or corneal ulcer as the writer does not feel able for such a task. I have selected a few types of corneal involvement that are encountered in our practice and will, with your kind indulgence discuss with you our method of handling such cases, hoping that the discussion so brought out will be of interest to us and a benefit to our patients.

As oculist and aurist for the Missouri Pacific and the Chicago Rock Island and Pacific Railroads, there is seldom a day passes that we are not called on from one to five times to remove a foreign body from the cornea. Our routine procedure is two drops of a four percent solution of cocaine dropped into the eye, after which the foreign body is removed with a sterile corneal spud. And when I say sterile I mean a spud that has just been boiled. We are careful to remove any stain or dead corneal tissue immediately surrounding the foreign body. We insist on picking the foreign body out, and not scraping it off. Some oculists dot not remove the debris after the foreign body is removed, arguing that by so doing the resulting scar may be more, and vision may be less. Almost invariably when we have

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left a deposit of debris, or a stain around the area where the foreign body was, the patient has returned in one or two days with same symptoms as before, absolutely convinced within his own mind that we did not get the foreign body all away. These cases are seldom bandaged unless the abrasion is such that we fell a bandage will be indicated to relieve pain. All are given a ten per cent solution of argyrol to drop into the eye every two or three hours. I have not had a severe infection in one such railroad case within the last twelve years. Evidently the foreign bodies are sterile when they enter the eye in contrast to blades of wheat, oats and corn, as gotten by the farmer, and particles of coal as encountered from coal mines. I have seen more than one eye irreparably infected from such particles, and I believe that if ever there is a time for heroic treatment of corneal ulcers it is in just such cases. Given a sloughing corneal ulcer whatever the micro-organism if the ulcer dates back within a few days to a blade of corn, oats or wheat, or to piece of coal, the most heroic therapeutics are indicated. If we are able to demonstrate the pneumococcus we use one per cent ethyl hydrocuprin every one or two hours, preceded by an irrigation of normal saline solution. But we do not depend on that treatment; we immediately use cocaine or holocaine, usually the latter, and after anaesthetising the eye, curette the debris out of the wound and cauterize with phenol, trichloracetic acid, or the electric cautery. We prefer the electric cautery with a very short electrode, as we can limit our cauterized area better. With the Sheehan Thermaphore we have had no experience, but have used the little metal ball at times with, we think good results in less severely infected ulcers. In stubborn, long drawn out cases of keratitis and corneal ulcers of doubtful etiology, we have often used subconjunctival injections of cyanide of mercury with, we know, good results. We are uncertain as to the method of repair in injected, as well as cauterized cases. It is almost inconceivable that we can kill all the germs in an eye by a cauterization. The ulcer may be sterilized by such a method, but would not the conjunctival sac harbor enough germs to immediately, or within the next few hours, reinfect the wound again? The injections surely could not sterilize the eye-ball so as to stop the infection. I personally believe the cyanide does more good than normal salt because it produces more reaction. I wonder if the real benefit from the cautery, also the injection, comes from the leucocytosis so produced, or some biochemical change that takes place in the tissues immediately surrounding the ulcer. Will state before dismissing this type of ulcer that we believe strongly in hot applications, and the greatest attention to the patient's general physical condition. We also drop atropine into the eye about once or twice a day. The cases of sloughing ulcer are not bandaged, as we wish all the drainage that can be gotten. For the hypopion keratitis that is frequently associated with these cases we have never attempted to drain for fear of carrying our infection into the eye-ball. The Saemisch section we have done several times, mostly with bad results.

So far we have considered corneal conditions due to trauma and infections from without. Now let us consider a few of the conditions due to other causes. Almost, if not all the corneal involvments not mentioned above that have come under my observation, were due to trachoma, malaria, syphilis, tuberculosis, auto intoxication, or some focus of infection.

Trachoma ulcers, or keratitis, are always secondary to lid involvement, and will be passed rapidly, bringing out only one point, and that is that I believe an early external canthoplasty, in which operation we are sure to clip the external canthal ligament, is of paramount importance toward an early recovery.

I am uncertain in my own mind what relation malaria has to keratitis or corneal ulcer. I am aware that Duane in his translation of Fuchs text book says that a great majority of cases of dendritic keratitis are due to malaria. I accepted that statement and treated my cases of dentritic keratitis as such for several years, but within the last few years I have been requesting a blood examination in such cases and have not found the plasmodia in more than a majority of such cases. When we consider that a great many of our patients would be positive to malaria anyway, I have to approach this subject with an open mind. We must not forget that a focus of infection as well as auto intoxication may have something to do with these cases. The digestive tract should be considered here, as in all cases of keratitis in children. Too much sugar and other sweets will prolong the healing of a stubborn case of keratitis at times, when an elimination of the sweets from the diet will contribute to a speedy recovery. When the etiology of a case of keratitis as dendritic keratitis is obscure, we should do everything we can to nourish that patient, not sufficiently, but correctly; also take well heed of the elimination. As local treatment in dendritic keratitis we prefer powdered dionin dusted into the eye, also an occasional drop of one per cent atropine sufficient to keep the pupil semi-dilated.

Another form of keratitis that exhaustive treatises have been written on, and that we encounter frequently, is interstitial keratitis. We will not take time to discuss whether all cases of interstitial keratitis are luetic, as we all know most cases brought to are such, and most of them in young people, victims of inherited lues. I have seen a few cases in older patients who have acquired lues, but have never seen the characteristic salmon patch in such cases. They have had the ground glass appearance of the cornea, and may be that untreated they would have gone on to the salmon colored pathology. We all know that interstitial keratitis begins with a haziness of the cornea, followed within a short time by the so-called ground glass cloudiness deep into the layers of the cornea with the salmon red color coming later. We know this is an affection of the interstitial frame work of the cornea, and not of the epithelial layer, or Bowmans membrane alone, as some of the other form of keratitis. Our diagnosis will be correct in most all of the cases from an inspection and our physical findings, but the Wasserman test should be used here, no difference how positive we are in our diagnosis. The Wasserman should be made, not only for a diagnosis, but to check up our results in treatment. When I first began to treat interstitial keratitis I used the old method of Mercury and the iodides, and plenty of elimination. Which treatment was good then and is now. But these cases can be cleared up much more quickly by the use also of some of the salvarsan preparations. I believe all these cases should, when possible, be handled by a trained syphlographer in co-operation with the opthalmolologist. The age of the patient and the size of the vein should be no contra indication for the use of the arsenical preparation, as a good trained syphlographer will very seldom be embarrassed by a failure to enter the vein. The duration of healing since I have been pursuing this plan has been so much shortened that I feel that I would be derelict in my duty did I not insist on such treatment. It is true that the money that I now get from these cases, even if they are able to pay a good fee, is very small, as I do very little for them, the other man does the good and almost takes the treatment out of my hands. Sufficient atropine to keep the pupil dilated, and colored glasses is about all the treatment I give them.

We will now consider for a few moments a form of keratitis that has been much misreated in my practice in the past. I have reference to tuberculosis keratitis. From my own case records these cases can be put in two distinct cases, one in which the keratitis has been associated with an episcleritis or hypertrophic conjunctivitis is which blood vessels all around the limbus have grown over the cornea and the edges of the cornea would have a beefy appearance. These cases have given the history of failing vision for several weeks associated with intense pain and great intolerance to light. No active ulceration would be present, and no break in the epitheleum of the cornea. No pus formation, but a profuse discharge of tears. no phylyctenules would be present. Another case would come in with a slight ulcer, or infiltrated area, maybe the size of a pin head in the cornea two to three M.M. from the limbus. This patient would suffer much pain, photophobia and have profuse discharge of tears, but no pus in the conjunctiva. Next day there may be two or more of these infiltrated areas, maybe extending to the limbus. These areas may coalesce and form a marginal crescent shaped ulcer, or the first infiltrated area may be crescent shaped eight or ten M.M. long and three or four M.M. wide, but always very close to the limbus. These areas I have never seen extend to the center of the cornea. This last class of cases are just the ones that I used to try all kinds of treatment, as powdered calomel, dionin, argyrol, atropine, hot applications, and everything else that was recommended for sore eyes. I have seen such rapid recovery in the above two classes of cases from tuberculin that I am thoroughly converted to its efficiency. Will say that in these cases, as in interstitial keratitis, I believe in a trained man giving the tuberculin. All such suspicious cases I send to a trained tuberculographer and have a tuberculin test made, and if the tuberculin test is positive the patient is treated accordingly. As regards the efficiency of tuberculin in pathological eye conditions one has only to peruse the literature. Richard H. Miller, Journal of the American Medical Association, says, "There is no doubt that tuberculin has been the means of saving many eyes with tuberculosis infection, and I have seen several such good results in our own clinic." Dr. H. H. Stark, Southwestern Medicine, has the following to say: "1. Localized tuberculosis of the eye is a far more common disease than is generally admitted. 2. The diagnosis can be made by subcutaneous administration of old tuberculin up to the point of saturation. 3. The administration of some forms of tuberculin is warranted by the rapid improvement, and the arrest of the process which results in a possible cure in the majority of cases."

I wish to state that I have never given a hypo of tuberculin, as I consider it a dangerous remedy, and prefer to have it used by one that is more familiar with its actions and the methods of administrations. These cases pay me very little money, as the internist takes

them off my hands. About all the local treatment they get is atropine and dionin.

H. D., age 32, came into my office June 1, 1922, suffering intense pain. L. E. duration 3 days. On examination slight infiltrated area about the size of a pin hear at 11 o'clock left eye. Patient's pupil dilated with atropine, 10 per cent dionin given to be dropped into eye three times a day. June 2nd another infiltrated area about 10 o'clock pain photophobia and lachryuction no better. June 3rd these areas had coalesced and crescent shaped ulcer present. On first day tonsils and nose were examined for focus of infection and patient was advised to have Wasserman test (no history of Lues), X-ray of teeth and sinuses and blood test for malaria. Patient did not have such tests until June 8th, during which time he got gradually worse. On June 8th blood showed negative malaria and Lues sinuses and teeth negative to X-ray. But on 9th, after an injection of tuberculin on the 8th, the patient showed the local, focal and general reaction to tuberculin. On the 10th the patient was slightly better and continued to improve and was practically free from pain on June 12th and had a speedy recovery. This case was diagnosed and treated by Dr. A. C. Shipp, Little Rock, Ark.

This leaves only two etiological factors as producers of keratitis mentioned above and not discusses. Auto intoxication is associated with so many conditions, and may be an etiological factor in so many of the cases, that I do not feel as I can discuss it alone not associated with other etiological factors. Suffice it to say that in all forms of keratitis the diet and state of the alimentary canal are important factors and must be considered. That leaves us only foci of infections to be considered.

From my own experience the most dangerous foci of infection is the lachmyral sac. We just recently treated a corneal ulcer associated with dacryocystitis for ten days with no results, which cleared up very shortly on removal of the sac. We hesitated to do such a formidable operation in the presence of a large ulceration of the cornea, but will not hesitate next time.

As regards other foci of infection I was unable to recall any case of keratitis produced by any other foci than teeth and sinuses. You all can most likely call to mind cases of severe pain in the eye that have been relieved by the extraction of a tooth. There seems to be a close relationship between the teeth and the eyes, and no case of keratitis or any other eye pathology for that matter should be treated without due regard to the teeth. Thanks for the X-ray as a method of diagnosis in the pathological teeth condition. The same may be said of sinuse infections, but in my experience sinus infections have contributed more to disease of the optic nerve, retina and choroid than to the cornea.

This paper could have been made much longer by an exhaustive report of cases, but I preferred not to tire you, rather would I read a short paper with a few salient points, and ask for your full discussion.

References: 1. Mr. J. V. Patterson, British Medical Journal No. 3175, Nov. 5, 1921. 2. Dr. Richard H. Miller, Journal A. M. A., July 29. 1922. 3. Dr. H. H. Stark, Southwestrn Medicine, Vol. IV., No. 12, December, 1920.

THE FUNDAMENTAL PRINCIPLES OF RADIATION THERAPY

By SANFORD WITHERS, M. D.,
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THE scope of this subject is too broad to be adequately treated in the time allotted to us so that we shall be content to present a resume of the most important physical, histological and clinical principles of the science of radiation therapy.

During the past few years our knowledge of the bio-physical and clinical action of radium and X-ray has been rapidly increasing. With this the problem of the treatment of malignant disease has become largely one of more accurate application to attain the desired dosage. At present we consider radium to be the greatest single agent at our disposal in combatting cancer. It should not, however, be considered a cancer cure, in that the treatment of malignancies is not directed at the constitutional disability or exciting cause.

It is possible that through extended experiments with the intravenous use of the element, the emanation or the active deposit of radium this constitutional treatment may be supplied. In the meantime, however, our main energy must be directed toward increasing its value for local application, supplemented by penetrating X-radiation.

The fundamental principles underlying any radiation therapy may be divided into three groups for logical discussion; depending upon whether or not the phenomenon bears upon the physical, histological or clinical aspects of the cases treated.

We shall try to give an introduction to radiation therapy, as applied to the use of gamma and X-rays through a discussion of these three factors in a more or less empiric way. This will necessitate making broad statements to which possible exception may be taken, but

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will in general give you the consensus of opinion as held by responsible authors and investigators.

I. Physical Phenomena Controlling the Reaction to Radiation

Let us consider briefly what happens when a beam of X or gamma rays passes through any material substance. We know that the greater the density of such screening substances the more radiation there is absorbed; and it has been proved that the greater the amount of radiation stopped or scattered the more intense is the ionization yielded through the production of negative electrons (the so-called delta rays). These are in every way comparable to soft beta radiation.

This, then, is the method of producing ionization and we know that for any given cell the reaction to radiation depends entirely upon the intensity of the ionization produced. It is, therefore, probable that the direct effect of the incident beam of X or gamma rays is practically nil and that the biological effect depends almost, if not entirely, upon the amount of ionization produced within the tissues, which, as we have seen, is a direct function of the absorption and scattering coefficients.

II. Structural Characteristics (Histological) Which Determine the Reaction to Radiation

Regardless of their futures as therapeutic agents the use of radium and X-ray have demonstrated certain hitherto unknown cellular characteristics. It was observed that certain tissues were **resistant** to even large doses of radiation while others were quite **susceptible** and underwent resolution or retrogression with remarkably small units of gamma or X-rays. In general, there are six structural characters which determine susceptibility to radiation. All are of a cellular nature:

(a) It has been shown that the more embryonal or undifferentiated the type of cell the greater is its radio-susceptibility; the converse is equally true that the more differentiated, highly specialized the type of cell the greater is its radio-resistance, in general.

(b) It is easily demonstrated that cells in the process of dividing, (mitosis), are from eight to fifteen times more vulnerable to radiation than when in the resting condition.

(c) It is equally true that cells containing large amounts of chromatin material are more easily killed than those containing little chromatin. In other words, cells having hyperchromatic nuclei are in general much more radiosensitive than similar cells having small amounts of chromatin in the nucleus.

(d) It is common knowledge that the endothelium of blood and lymph vessels is very radiosensitive and that tumors having an abundance of thin-walled, delicate capillaries react much more quickly and favorably to radiation than corresponding tumors having a scanty blood supply.

(e) Tumors having small amounts of intercellular connective tissue react much more quickly and favorably to radiation than new growths having an abundant stroma.

(f) In general it may be said that cells which secrete crystalloid or crystallizable material are much more radiosensitive than non-secreting cells having the same histological characteristics or cells that secrete colloid or protein substances.

It was the presence of this histological picture, wholly or in part, in tumors which responded quickly to radiation that lead certain authors to assert that radium was selective in its action for certain types of cells.

On the other hand, tissues prove relatively insusceptible when the cells are differentiated, adult in structure and contain small amounts of chromatin in the nucleus; when they grow slowly and mitoses are few; when the blood supply is through well formed, adult vessels and when there is much intercellular material or stroma.

Again the presence or absence of any one of these characteristics to a marked degree enables one to predict on **a priori** grounds that the growth **will** or **will not** retrogress favorably under radiation if properly applied. The radiosensibility of cells does not in any way depend upon the anatomical location, but depends entirely upon the histological picture presented.

For example a lymphoid hyperplasia which is made up of hyperchromatic and undifferentiated cells is almost as vulnerable to radiation as sex cells and will undergo retrogression with mild radiation whether it be a lympho-sarcoma, Hodgkin's disease, a thymic or tonsillar hypertrophy or a tuberculous cervical adenitis.

III. Clinical Conditions Which Influence the Reaction to Radiation

The clinical conditions which influence the reaction to radiation may be divided into two groups: Those that are purely local in their manifestations and those that are of a constitutional nature.

(1) **Local Conditions Which Influence the Reaction to Radiation.** (a) One of the most important reactions following the irradiation of a localized area is the intense round cell infiltration which accompanies the consequent inflammatory reaction. The presence of this zone of lymphocytes and plasma cells constitutes the first barrier to neoplastic invasion just as the leucocytic infiltration about a pyogenic infection successfully walls it off. It has been very well proved, by McCarty and others, that the presence of a round cell infiltration in the zone of proliferation of an uninfected ma-

lignancy, argues that such a growth is relatively less malignant than one having a similar cell structure, but without the intense round cell infiltration. In other words the presence of a round cell infiltration about a malignancy, whether it occurs as a part of the natural body resistance, or whether it is stimulated by radiation, is the first step in causing the retrogression of neoplastic elements.

(b) The repair of irradiated tissue following the radiation reaction is brought about through the deposit of white fibrous connective tissue in interlacing lamellae throughout the area radiated. This scar tissue formation is similar to the repair that takes place in other traumatized areas and is a function of the absorbed radiation largely due to the secondary beta particles as before mentioned.

(c) Accompanying the irradiation there is produced a local obliterative endarteritis which in many sections has the appearance of marked arteriosclerosis. This closing of the blood vessels and lymph spaces through the combined action of the arteritis, perivascular round cell infiltration, and scar tissue formation, effectively incarcerates persistent neoplastic elements.

(2) **Constitutional Conditions Which Influence the Radiation Reaction.** These conditions can be summed up by saying that any condition which effects the body as a whole must necessarily effect every cell in it. Please understand then, that when dealing with malignancies it is necessary to have the physical functions of the body as nearly normal as possible. The presence of a marked cachexia with the usual anaemia and leukopaenia should make the prognosis guarded even though the malignancy is well localized and one that would ordinarily be termed favorable. This is likewise true in the case of diabetics or leutics and those having marked cardio-vascular or cardio-respiratory diseases. The presence, then, of any marked constitutional disability seems to render the normal tissue more radiosusceptible and the repair following irradiation prolonged in the extreme. In these conditions also it is advisable that proper measures be taken to promote body welfare, and that irradiation be undertaken with a great deal of thought and preparation so as not to hurry such patients to their death by over irradiation.

In the practical treatment of malignancies with radium or X-ray there are four chief points to be kept in mind which necessitate the very closest co-operation of the surgeon, pathologist and radiologist.

1. The pathology must be interpreted into terms of radiosensitiveness. This can come only through experience.

2. The proper area or areas for irradiation must be accurately determined.

3. The required dose of radiation must be placed in that part of the growth where the active proliferation is taking place to stimulate normal tissue resistance to the invading neoplasia and obliterate the lymph spaces.

4. The normal tissues must be protected in every way possible so as not to break down the natural body resistance through the destruction of red blood corpuscles, lymphocytes and the continuity of the normal tissue stroma, which makes up the triumvirate of tissue defenders. These must be conserved and stimulated.

Reactions to radiation are not only qualitative but quantitative, when all of the factors involved are taken into consideration; but this statement does not permit of the interpretation that there is, or can ever be, established a standard carcinoma or sarcoma dose since no two growths have identically the same cell structure or surrounding normal tissue stroma permitting an identical reaction.

Summary

(1) That the cellular reaction to radiation depends upon the amount of radiant energy absorbed whether it be primary or secondary in origin.

(2) That susceptibility to short wave length therapy is a cellular characteristic depending upon a definite histological structure.

(3) That the normal tissue reaction to radiation and neoplastic invasion depends to a large degree upon the well being of the body as a whole.

(4) That there is sufficient data extant to predicate on **a priori** grounds those tissues or tumors which will prove radio-resistant or radio-susceptible.

(5) That the use of radium or X-ray is just as radical and rational a procedure as the use of other physical agents in the treatment of neoplastic conditions.

(6) That the use of radium or X-ray in a given condition should require an equal amount of surgical judgment, a more complete knowledge of the pathology present and a broader bio-physical training than the corresponding surgical ablation demands.

If the writer were rich he would establish a commission consisting of biologists, chemists and physicists to study malignant disease.

¶ Botulism is frequently associated with a paralysis of the intestinal tract and constipation. But in the absence of diarrhea there are the nervous symptoms, dizziness, diplopia, visual disturbance and difficulty of swallowing.

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

APPLIED THERAPEUTICS

THAT branch of medicine which deals with the treatment of abnormal conditions is called therapeutics.

Nature's own power, **vis medicatrix naturae**, always tends to right her own wrongs, therefore we should not be too ardent in our pursuit of agents which may interfere with this power.

The old dogma, "physicians treat but nature cures," is as true today as when uttered over 2,000 years ago. However, this does not mean that we should fold our hands and keep a "watchful waiting" for her to do her best or worst. While we are unfamiliar with the details of all her methods of reconstruction, we have made wonderful progress in the interpretation of her crying needs and are able to render a service of unquestioned value.

Disease is characterized by altered physiological function or functions, and our work lies in the attempt to aid nature in the restoration of these functions. The patient is not so much interested in the method as he is in securing relief from the symptoms which distress him.

Notwithstanding the incongruities of opinion of the best method to pursue in a given case, our progress toward scientific therapeutics has been of such a nature that we may hope for the dawning of the day when **pathies** and **isms** will give way and the crown of glory will be pressed upon the brow of scientific medicine.

Physicians, enthusiastic over certain methodss of therapy have constructed many systems all of which are supposed to lead to the spring wherefrom we may drink of the waters of health. While these systems are many and their ways devious, it may be well to mention those of most importance which are: Pharmacotherapy, Surgicotherapy, Mechanotherapy, Psychotherapy, Dietotherapy and last but by no means least, Physiotherapy.

There is no question but what all these systems possess merit worthy of our consideration. Not one of these agents is capable of standing alone, but when properly combined present a force of incalculable value in the restoration of physiological function.

Parasites cause disease and the medical profession not being immune is infected by parasites trying to practice medicine. To name the different strains is not necessary as we all know them.

The old sayings that "we are born equal" and that "everyone is entitled to his own opinion" are both fallacious. As physicians, we know that heredity plays an important role in being born right and no one has a right to an opinion upon any subject with which he is not familiar.

The multiplicity of agents and methods employed to assist nature in her efforts to restore function, makes it impossible for any one mind to retain them all, hence the necessity for a division of the work among those most competent, each under the line of his greatest endeavor. Such team work will result in the greatest good that can be accomplished in medical practice. Let us not be too hasty in the acceptance nor in the condemnation of theories advanced or methods employed of which we have but little or no knowledge. It is quite probable that the medical man meets with more unfulfilled promises than any one engaged in any other line of human endeavor, and he naturally becomes a skeptic, and is more or less excusable for his frequent use of the word "bunk." We often hear him say "I've tried electricity and it's all bunk." He is also heard to say "This stuff about each disease having a little movement all its own is too silly to be called to our attention." Let us be charitable for he knows not what he is saying. What would any of us have said, forty years ago, about the ability of men carrying on a conversation across the Pacific ocean, without the aid of wires?

He who lives in a paper house should be careful with matches.

Medical progress may be likened to the advance of a drunken man, he has his ups and downs," side lurches and backward steps, so has medicine, but withal consideration advancement has been made.

There is no medical **ism** but what contains a kernel of good, and let us apply to them the old fanning mill process of blowing away the chaff and retaining the grain.

We understand the term physiotherapy to mean, use of physical agents such as light, heat, cold, water, electricity, etc., in the treatment of physiological disfunction or disease.

Certain forms of application of these agents are termed, hydrotherapy in which heat and cold are applied by means of water; phototherapy in which light is used; electrotherapy in which electric currents are employed; roentgenotherapy in which X-rays are used and radiotherapy in which radio-active substances are used in the treatment of disease.

It is also legitimate to include massage, vibration, Swedish movements and general gymnastics under the general head, physiotherapy.

As has been previously stated no one agent can be depended upon entirely in the manage-

ment of but few conditions which we are called upon to treat. Team work is essential to success. There is no valuable method of the treatment of disease known but what rightfully belongs to the medical profession, and every physician should be broad enough to employ the best agent at his command.

As time goes on in sun and shade pharmacotherapy is gradually losing out. The modern therapeutical cry is "off with the old and on with the new," but let us not be entirely hypnotized by this suggestion and push into the discard those agents which have been tried and found **not** wanting.

Disease is a subject which may be viewed from many points; it can be approached from many sides, the path of approach is chosen by the medical man which to him seems most enticing and depends largely upon his previous training. All methods of therapy are founded upon clinical experience and the degree of success attained by the physician depend upon his ability to profit by the experience. Great and constantly increasing advancements in knowledge have been made, especially during the thirty years just past, but the old law "that a knowledge of the mechanism of disease must precede scientific therapeutics" still holds good.

(To be continued)

VINCIT!

We cannot all achieve renown,
Some will ascend, and some stay down;
Though many win the World's acclaim,
A host will work unknown to fame.

Do, then, thy duty as it comes;
March without blare of brass or drums—
GREATER than Conquerors or Kings
Is he who's GREAT IN LITTLE THINGS.

—Am. Jour. Clin. Med.

Current Comment

SOUTHERN MEDICAL ASSOCIATION

The annual meeting of this association will be held in Washington, D. C., under the presidency of Dr. W. S. Leathers of University, Mississippi, November 12 to 15, 1923. Arrangements are being made for a special through car from Kansas City to Washington. All are invited to join. Special round-trip rates on railroad, open to all physicians. Hotel reservations should be made at the New Willard hotel without delay. For reservations address Dr. Charles Wood Fassett, 115 East Thirty-first St., Kansas City, Mo.

ALA ABRAMS

A Chicago judge trying to determine the parentage of a little girl has called in "medical experts" to examine her blood. It is not stated in the dispatch, but it is assumed they will use the Abrams method, for Dr. Abrams so far as is known is the only man who thinks he has a method for determining a child's paternity by a blood examination. But then the doctor announced in his house organ for September, 1922, that his test would distinguish the religion of an individual, telling whether he was a Catholic, Protestant or Jew. And if it will do that, it ought not to have the slightest difficulty in distinguishing the child's father and forecasting how much money she will marry and whether a dark man will cross her life. While the court is digging out facts by the blood test, it ought not to neglect all these little details.—Kansas City Star.

INTRODUCING "FIBROFORM AND THE "NOLAN INHALANT"

A news item going the rounds of the press says:

"A cure for pulmonary tuberculosis by the use of pure carbon and calcium was claimed by Dr. William P. Nolan of Jeannette, Pa., in an address before the Westmoreland County Medical Society in Greensburg, Pa."

In "branding the misbranded cure" the J. A. M A. has this to say very pertinently:

"The tragedy of every episode of this sort lies not in the fact that a reputable physician has allowed his enthusiasm to run away with his judgment but that thousands of optimistic consumptives are once more having their hopes of a short-cut, sure-cure raised only to be blasted. All that the medical profession can do is to warn the tuberculous that much better evidence will have to be forthcoming before it can be asserted that Dr. Nolan has developed even a therapeutic aid in the treatment of tuberculosis, much less a cure for this disease."

THE common doctor, who has spent thousands of dollars in his education, is beset on all sides by cultists who are for the most uneducated and untrained men. These cultists actually receive more money for their various drugless treatments than the honest, honorable physician who is trying by methods, which we confess are not always exact, but methods which have stood the acid test of time. A christian-science healer receives more for a prayer than a physician receives for an intelligent prescription that cures.—THE MEDICO, Mar., 1923, p. 3.

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald

and Electro-Therapist

Incorporating the

Kansas City Medical Index-Lancet

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Gastro-Enterology: J. M. Bell, St. Joseph.
Electro-Therapy: Burton B. Grover, Colorado Springs.
Surgery: Jno. E. Summers, Omaha.

All communications should be addressed to the Managing Editor.

Vol. XLII SEPTEMBER, 1923 No. 9

The Editors' Forum

ST. JOSEPH FREE CLINICS

THE semi-annual free clinic of the Buchanan County Medical Society will be held in the hospitals of St. Joseph, October 3rd and 4th. All the medical and surgical specialties will be represented. Service will be given without charge to the poor.

Dr. Leroi Beck, president of the society, has appointed the following named members as the clinic committee: Dr. H. J. Ravold, chairman; Drs. L. R. Forgrave, C. A. Good, W. T. Elam, H. W. Carle, F. H. Spencer, L. H. Fuson, J. I. Byrne, and H. S. Conrad, secretary.

Dr. F. H. Spencer will be in charge of all clinic arrangements at Ensworth Hospital, Dr. J. I. Byrne at St. Joseph's Hospital and Dr. C. A. Good at Noyes Hospital.

Entertainment will be arranged for the visiting physicians. Doctors from counties of northwest Missouri within a radius of 100 miles will attend the clinics.

HARKING BACK

Medicine as an art requires sympathy and understanding of the individual as a human being, to administer to his comfort when sick, to allay his fears, re-establish his confidence, and get him on his feet.

Does the modern medical school take into account any such human being? or doctor to attend him?

The Thyroid and its adnexa regulate the growth of cells and determine their activity.

ON BIRTH CONTROL

Contraceptive information, or conception prevention, has no fellowship with, nor gives quarter to, methods of abortion.

"Birth control is paramount in making us a retrogressive people."

That is one view. Here is another:

"Throughout the course of evolution there has been a progressive diminution in the quantity of offspring—a comparatively few of which in the lower forms of life succeed in surviving—and this diminution in quantity is accompanied by an increase in quality which ensures far greater chances of survival."

This last quotation by Havelock Ellis.

BEWARE—WHEAT STRAWS!

ACTINOMYCOSIS has for a long time been associated with leather or bristles, shaving brushes have conveyed it to man, in cases where bristles have not been properly cleaned. Now Dr. Michael G. Wohl, of Omaha, sounds a new note of warning—"don't pick your teeth with straw from the fields." The doctor has traced cases of this dreadful disease to the indiscriminate use of wheat straw as a tooth pick. The disease, long known as lumpy jaw has always been associated with cattle or hogs. Wheat straw is a logical avenue of infection. J. M. B.

J. W. FERGUSON, M. D.

THE demise of Dr. J. W. Ferguson which occurred recently, has left a very positive vacancy in the medical personnel of the Burlington R. R. as well as in the ranks of medical men in Kansas City. A most genial fellow, an efficient worker, a true friend, an estimable citizen. Dr. Ferguson was very highly esteemed by Dr. Denny of Chicago, the general medical director of the Burlington, and as well by all doctors who knew him. His record in St. Joseph, from which station he was promoted to Kansas City, was a clean one. He was beloved by his men here, and by the medical profession. He always wore a genial smile, and went about in a calm, deliberate atmosphere which was suggestive of ease, but back of it was a rare executive ability which kept his work up to the highest point of excellence, with the slate clean, ready for any emergency. He was a man of broad caliber; when conditions called for counsel with any of the specialties in medicine he unhesitatingly called them. He never left things half done. His death has been a shock to his many friends here. He was a fine fellow, an ideal husband, a good doctor. As long as the Burlington railroad runs in and out of St. Joseph it will always associate itself with the name of dear Dr. Ferguson. Our heartfelt sympathy is extended to the widow who survives him. J. M. B.

Are You a Member?

"Come with us and we will do thee good"

ORGANIZED at Council Bluffs, Iowa, September 27, 1888. Objects: "The objects of this society shall be to foster, advance and disseminate medical knowledge; to uphold and maintain the dignity of the profession; and to encourage social and harmonious relations within its ranks."—Constitution.

The Newly Organized Association

The Interstate Society of Radiology and Physiotherapy

C. L. MULLINS, President *ROLAND G. BREUER, Secretary*

will meet in conjunction with

The Medical Society of the Missouri Valley

Morning Clinics Will Be Held on September 19 and 20

OMAHA, NEB., SEPTEMBER 18, 19, 20, 21, 1923

President
Floyd H. Spencer
St. Joseph, Mo.

First Vice-President
W. F. Stotler
Shenandoah, Iowa

Second Vice-President
Palmer Findley
Omaha, Neb.

Treasurer
O. C. Gebhart
St. Joseph, Mo.

Secretary
Charles Wood Fassett
Kansas City

Chairman Arrangement Committee
J. Fred Langdon
Omaha

HO FOR OMAHA

The outstanding event for September will be the joint meeting of the Interstate Society of Radiology and Physiotherapy and the Medical Society of the Missouri Valley to be held at Hotel Fontenelle, Omaha, Neb., September 18-21 inclusive. The medical profession of the entire Central West is extended a cordial invitation to attend the sessions of both societies.

The Interstate Society will open on Tuesday morning, September 18, at 9:30, under the presidency of Dr. C. L. Mullins, of Broken Bow, Neb., and continue throughout the day. On Wednesday morning from 8 to 12, there will be no sessions held at the hotel, the local profession will hold clinics in the various hospitals with demonstrations of radiology and physiotherapy. A bulletin of clinics will be posted at the hotel on Tuesday afternoon.

On Thursday morning from 8 to 12, medical and surgical clinics will be held in the Omaha hospitals, and no sessions will be held at the hotel until 1:30 p. m., at which time the Medical Society of the Missouri Valley will open its session, under the presidency of Dr. Floyd H. Spencer, of St. Joseph, Mo. On Wednesday it is proposed that a joint dinner of both associations will be served at the Fontenelle Hotel, announcement of which will be made at the opening meeting.

On Thursday evening at 7:30 Dr. Barney Brooks, Washington University, St. Louis, will deliver the surgical oration, his title being "Diseases of the Blood Vascular System of the Extremities."

Dr. W. Turner Wootton, president of the Arkansas Medical Society, will deliver the oration in medicine his subject being "A Consideration of the Immunity in the Life of a Syphilitic Individual."

The following is the preliminary program:

Lymphatic and Myelocytic Leukemia Favorably Influenced by Irradiation Therapy, Dr. H .H. Bowing, Rochester, Minn., Pres. W. E. T.

Sequelae of Epidemic Encephalitis, Dr. G. Wilse Robinson, president Missouri State Medical Association, Kansas City, Mo.

The Treatment of Fractures, Dr. Edwin D. Ebright, president Kansas State Medical Society, Wichita, Kas.

Dilatation of the Cecum in its Relation to Appendicitis, Dr. J. M. Bell, St. Joseph, Mo.

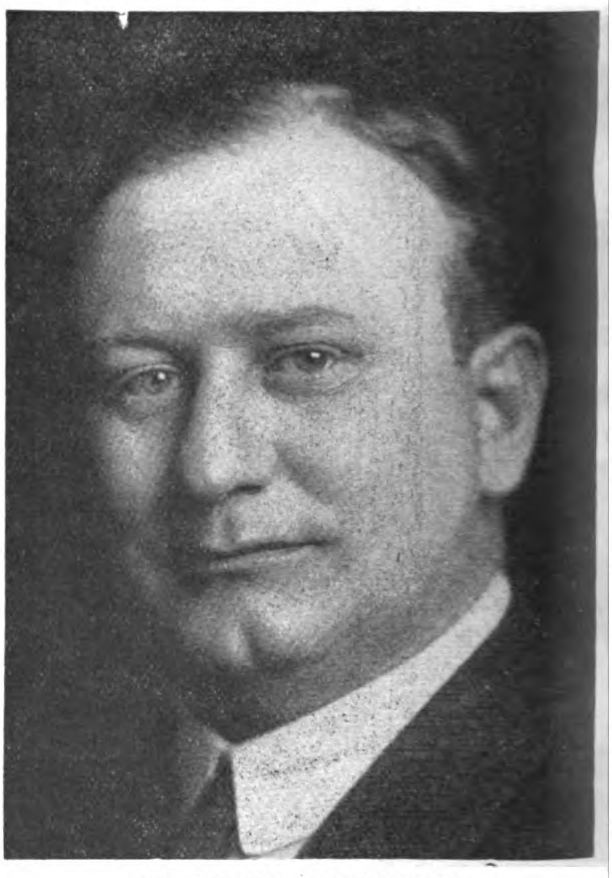
The Present Status of Blood Transfusion, Dr. H. K. Wallace, St. Joseph, Mo.

The Roentgenology of the Osseous Spinal Column (lantern slides), Dr. Edward H. Skinner, Kansas City, Mo.

Diagnosis of Pulmonary Tuberculosis, Dr. John Mills Mayhew, Lincoln, Neb.

The Use of Cistern Punctures in the Treatment of Diseases of the Nervous System, Dr. Lloyd J. Thompson, St. Joseph, Mo.

Syphilis of the Lung, Dr. Horace W. Carle, St. Joseph, Mo.



DR. FLOYD H. SPENCER
President Medical Society of the Missouri Valley

Fractures of the Skull, Dr. Francis R. Holbrook, Des Moines, Iowa.

A Review of 50 Cases of Cancer and 25 Cases of Precancer of the Breast, Dr. Caryl Potter, St. Joseph, Mo.

The Value of the Cardiograph in Insurance Examination (illustrated), Dr. Arthur L. Smith, Lincoln, Neb.

Classification of Heart Failure, Dr P. T. Bohan, Kansas City, Mo.

Trichiniasis, Dr. Granville N. Ryan, Des Moines, Iowa.

Medical Treatment of Tic Douloureaux, Dr. S. Grover Burnett, Kansas City, Mo. (Illustrated.)

How Many Hemorrhoids? Dr. Daniel Morton, St. Joseph, Mo.

Pulmonary Changes in Cardiac Diseases, Dr. David S. Dann, Kansas City, Mo.

Electro-coagulation (illustrated), Dr. T. Howard Plank, Chicago, Ill.

Increased Urinary Frequency, its Causes, Diagnosis and Treatment, Dr. T. M. Paul, St. Joseph, Mo.

Fractures of the Leg; A Study of 125 Consecutive Cases, Dr. F. E. Clough, Lead, S. D.

The headquarters and meeting place, Hotel Fontenelle. Rooms to be reserved without delay in order to avoid disappointment. Dr. Charles Wood Fassett, secretary.

THE EXHIBIT

On the mezzanine floor of Hotel Fontenelle will be placed the exhibit, composed of the following firms: Magnuson X-Ray Company, Omaha; McIntosh Electrical Company, Chicago; Hettinger Bros. Mfg. Co., Kansas City, Mo.; Horlick's Malted Milk Co., Racine, Wis.; Charles H. Phillips Chem., New York; Pelton & Crane Co., Detroit, Mich.

AMERICAN ELECTROTHERAPEUTIC ASSOCIATION

The American Electrotherapeutic Association will hold its 33rd annual meeting September 18th to 21st at the Hotel Chalfonte in Atlantic City. All licensed physicians interested in physiotherapy are welcome. Of especial interest on the program will be a symposium on Physiotherapy in General Practice. Programs can be obtained from the Corresponding Secretary, Dr. Michard Kovacs, 223 East 68th Street, New York City.

PHYSIO THERAPEUTIC MEETING IN CHICAGO

Announcement is made of a special physiotherapeutic week in Chicago, October 15 to 19 inclusive. An interesting series of lectures and clinics have been arranged, open to all physicians of good standing. There will be no admission charge and no obligation imposed. The following well known specialists will take part in the lectures and demonstrations:

Drs. Gustav Kolischer, Frederick H. Morse, R. W. Fouts, Curran Pope, Emile De Val, T. Howard Plank, Roswell T. Pettit, H. I. Smith, and others. This series of lectures has been arranged for the special purpose of instructing physicians in the use of electrotherapeutic equipment, and all practitioners are welcome to attend, regardless of the type of machine they may use. The meeting will be held in the Logan Square, Masonic Auditorium. While there will be no charge for admission, the seating facilities are limited, and early registration is requested by those who wish to attend. Address H. G. Fischer & Company, 2333 Wabansia avenue, Chicago, Ill.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION

The forty-eighth annual meeting of the Mississippi Valley Medical Association will be held at Hot Springs National Park, October 9, 10 and 11, 1923, under the presidency of Dr. Henry Enos Tuley, of Louisville. The beautiful Eastman Hotel will be headquarters, and all sessions of the association will be held under one roof. Reservations should be made early for this meeting. An excellent program has been prepared, including Dr. Frank Smithies of Chicago, who will deliver the oration in medicine and Dr. William N. Wishard of Indianapolis, who will deliver the oration in surgery. A cordial invitation is extended to the medical profession everywhere to attend this great meeting, and enjoy the provincial hospitality of the Hot Springs physicians and their ladies. It will be an event that you will never forget. John L. Tierney, M. D., secretary, St. Louis, Mo.

MISSOURI VALLEY NEWS

Dr. John W. Shuman of Sioux City, Iowa, who has been at the head of the medical service in the Medical College of the American University, Beirut, Syria, has returned to his first love. We hope the doctor may be present at the Omaha meeting and tell us all about it.

Dr. Paul C. Morton, senior surgeon of the house staff of St. Luke's Hospital, New York City, has returned after a vacation visit with his parents, Dr. and Mrs. Daniel Morton, St. Joseph.

REMOVALS

Dr. W. P. Wherry, 603 Brandeis Theatre Bldg., to 703 Brandeis Theatre Bldg., Omaha.

L. C. Million, 1706 Tyler Parkway, to 206 West Walnut, Louisville, Ky.

Dr. Carl H. Carryer, 910 Equitable Bldg., to 713 Hippee Bldg., Des Moines, Iowa.

Dr. J. W. Cokenower, Utica Bldg., to 401 Iowa Bldg., Des Moines, Iowa.

Dr. Phillip Sher, 692 Brandeis Theatre Bldg., to 482 Brandeis Theatre Bldg., Omaha.

Dr. John B. Potts, 567 Brandeis Theatre Bldg., to 600 Brandeis Theatre Bldg., Omaha.

Dr. H. B. Hamilton, Brandeis Theatre Bldg., to 800 McCague Bldg., Omaha.

Dr. Stuart A. Campbell, Tilden, Neb., to Norfolk, Neb.

Dr. James M. Patton, 563 Brandeis Bldg., to 600 Brandeis Theatre Bldg., Omaha, Neb.

Dr. Sidney Lawson, Sixth and Edmond, St. Joseph, Mo., to Sayre, Okla.

Dr. Franklin E. Way, 2310 East Sixth St., Kansas City, Mo., to R. R. No. 5, Belleville, Kas.

Dr. Clinton Harris, Grinnell, Iowa, to Woodman, Colo.

Dr. L. L. Henninger, Council Bluffs, Iowa, to 205 Citizens Bank Bldg., Pasadena, Calif.

Dr. Earl McClean, Oskaloosa, Iowa, to Des Moines, Iowa.

Dr. J. E. G. Waddington, 610 Scherer Bldg., to 605 Capitol Theatre Bldg., Detroit, Mich.

DECEASED

Dr. Charles Rosewater, 3424 Farnum St., Omaha, Neb.

Medical Association of the Southwest
Kansas City Annual Fall Clinics
Southwestern Urological Association
Convention Hall, Kansas City, Mo., October 8 to 13, 1923

THE Medical Association of the Southwest will be entertained in Kansas City from October 8 to 13, 1923, with a clinical program of unusual distinction provided through the efforts of the newly organized Kansas City Clinical Society.

The distinguished guests who have accepted invitations include:

Dr. John B. Deaver, Philadelphia.
Dr. Joel Goldthwait, Boston.
Dr. Lewellys Barker, Baltimore.
Dr. J. Withridge Williams, Baltimore.
Dr. Joseph Beck, Chicago.
Dr. J. H. Cunningham, Boston.
Dr. Peter Bassoe, Chicago.
Dr. Jay Frank Schamberg, Philadelphia.
Dr. Reubin Peterson, Ann Arbor.
Dr. F. M. Pottenger, Monrovia, Calif.
Dr. Henry Dwight Chapin, New York.

DAILY PROGRAM OF EVENTS

Monday, October 8

Registration.

Medical and Surgical Clinics at hospitals in Greater Kansas City. Program and admission cards available at Convention Hall, 7:30 A. M.

Special trip to X-ray laboratories at hospitals. Start from Convention Hall at 9 A. M.

Round Table Luncheon for different specialties. Information at Registration Booth, Convention Hall.

Banquet for Obstetricians, Gynecologists, Pediatricians and Radiologists at 7:00 P. M. Tickets may be purchased at Convention Hall, $2.00.

Office clinics in afternoon.

Golf in afternoon.

Tuesday, October 9

All day at Convention Hall.

8:00-10:00—Commercial and Scientific Exhibits.

10:00-11:00—**Henry Dwight Chapin**—"The Management of the Undernourished Infant in Public and Private Practice."

11:00-12:00—**J. Whitridge Williams**—"Obstetrics and the General Practitioner."

12:00-2:00—Round Table Luncheons for various specialties.

2:00-3:00—**Reuben Peterson**—"Use of Pneumoperitoneum and X-ray in the Diagnosis of Obstetric and Gynecological Conditions." Illustrated by lantern slides.

3:00-4:00—**Joel E. Goldthwait**—"The Chronic Patient—New Methods of Studying to Better Diagnosis and Treatment."

4:00-5:00—**Russell D. Carman**—(Title will be supplied later.)

5:00—Commercial and Scientific Exhibits.

7:30—University Medical College Alumni Reunion Banquet, Francis I Room, Hotel Baltimore.

8:00—(Probably Public Health Meeting.)

Wednesday, October 10

All day at Convention Hall.

8:00-10:00—Commercial and Scientific Exhibits.

10:00-11:00—**John B. Deaver**—"Focal Infection in the Abdomen."

11:00-12:00—**Peter Bassoe**—"Lethargic. Encephalitis; Pathology, Clinical Manifestations and Sequalae."

12:00-2:00—Round Table Luncheons for various specialties. Phi Beta Pi Medical Fraternity Luncheon at New K. C. Athletic Club.

2:00-3:00—**F. M. Pottenger**—"Muscle Spasm and Degeneration in the Diagnosis of Pulmonary Tuberculosis."

3:00-4:00—**Lewellys F. Barker**—"Medical Clinic, including Endocrine Diseases."

4:00-5:00—**Walter Timme**—"The Psychoneurotic Patient from an Endocrine Standpoint."

5:00—Commercial and Scientific Exhibits.

Evening open account opening Industrial Exposition.

Thursday, October 11

All day at Convention Hall.

8:00-10:00—Commercial and Scientific Exhibits.

10:00-11:00—**Joseph C. Beck**—"The Pathological Changes in Nose, Throat and Ear Diseases as a Basis for Indications of Their Treatment." Illustrated by lantern slides.

11:00-12:00—**E. V. L. Brown**—"Newer Ideas Concerning Glaucoma."

12:00-2:00—Round Table Luncheons for various specialties.

2:00-3:00—**John Henry Cunningham**—"General Principles Involved in Prostatic Problems."

3:00-4:00—**Jay Frank Schamberg**—"The Cutaneous Manifestations of Syphilis and their Differentiation from other Skin Diseases." Illustrated with large number of lantern slides.

Special sessions Kansas City Eye, Ear, Nose and Throat Society.

Dinner of Eye, Ear, Nose and Throat Society.

5:00-8:00—Commercial and Scientific Exhibits.

8:00—Orpheum Theatre Party.

Friday, October 12

Special sessions of Southwestern Urological Society.

Medical and Surgical Clinics at hospitals in Greater Kansas City.

Office Clinics in afternoon.

Golf in afternoon.

Saturday, October 13

Medical and Surgical Clinics at Hospitals in Greater Kansas City.

Gold in afternoon.

Ladies' Program

Visiting ladies to the conventions and clinics will find a program that will be of unusual interest. Every effort is being made to make their stay in Kansas City as enjoyable as possible and to keep them from having any idle time on their hands while the men are attending the various professional features. Among the

events arranged will be theatre parties, both moving picture and vaudeville, shopping tours, motor trips, golf games and teas at private homes and hotels. There will be no charge for any of these things. The ladies' committee is handling all details, and the women know what the women want.

Entertainment

The entertainment features for the men will consist of round table luncheons each day, an Orpheum Theatre party, golf tournaments and various other features. However, the entertainment side of the conference has not been allowed to interfere with the professional program. As a matter of fact, this is a post-graduate school for physicians and surgeons, and the medical program has been emphasized accordingly.

Golf

The importance of golf as a feature of medical conventions has been recognized, and a strong committee will provide a diversity of tournament and social matches for every physician who brings his clubs and shoots below 150. There are ten Golf Clubs of 18 holes each, to which golfers will have access. Prizes will also be given winners in the various classes.

Commercial and Scientific Exhibits

The Success of the Commercial and Scientific Exhibits at Convention Hall has been assured. The sessions of the convention will be held at one end of the hall and the space remaining will be sold to the exhibitors. In addition to the Commercial Exhibit there will be a Scientific Exhibit and a Clinical Amphitheatre seating 2,500. These exhibits will be open from 8:00 to 10:00 A. M., 12:00 to 2:00 P. M., and 5:00 to 7:00 P. M., thus giving every visiting Doctor a chance to see the latest developments in medical supplies.

Public Health Conference

A public health conference will be held which will wind up with a public health propaganda meeting. This meeting will be open to the public and to the profession on Tuesday evening, October 9th. Guests of international reputation will furnish the program. Plans have been made to make this the greatest meeting of its kind ever held in the United States. It will give the Southwest an unequaled opportunity to hear the latest facts about public health.

Round Table Conferences

These conferences will be in the form of regular luncheon parties at different clubs and hotels and will be devoted to the various specialties. There will be excellent opportunities to meet your colleagues and discuss individual problems which arise in each specialty. A chairman for each specialty has been provided, and full information will be available at the registration booth in Convention Hall. These will be in addition to the sectional specialty clinics and conferences.

Eye, Ear, Nose and Throat Club

A special program has been arranged for this section with clinics and surgical demonstrations at one of the hospitals.

Urological Society

This Society will have special sessions on Friday, October 12th, and local and out-of-town speakers will be on the program. This will be a convention in itself, as it is the annual meeting of the Southwest Branch of the American Urological Society. There will be a banquet luncheon to 100 in Banquet Room of Kansas City Club Friday night. The Secretary is Dr. C. K. Smith, 1334 Rialto Bldg.

Local Clinics

Local Clinics will be held in all Kansas City hospitals by Kansas City surgeons and clinicians, Monday, Friday and Saturday, October 8, 12 and 13. These clinics will be both operative and dry. The specialty clinics will be offered by the following specialty societies in Kansas City: The Kansas City Eye, Nose and Throat Society; The Roentgen Club of Kansas City; The Kansas City Pathological Club; The Urologic Club of Kansas City; The Kansas City Obstetrical Society, and The Kansas City Pediatric Club.

Alumni Meetings

Special arrangements have been made for alumni meetings. Any group desiring such a meeting can have it arranged for by communicating with Miss Elsie Howard, 400 Rialto Bldg., Kansas City, Missouri. There will be a meeting of the University Medical College Alumni, with a banquet. Several fraternities, including Phi Beta Pi, will also have group meetings.

Come as early as you can. Advance information indicates at least 2,000 doctors will attend. This is a real program, and we want every doctor to see and hear it all.

No charge excepting usual registration fee of $5.00.

Round Table Luncheons will be 75 cents to $1.00 each.

Monday night banquet will be $2.00 a plate.

Annual Banquet S. W. Branch American Urological Society will be $5.00 a plate. Attendance limited to 100.

Orpheum party is free to all who register, and to the doctors' ladies.

All events for women visitors will be without charge.

All information in regard to the three conventions and the clinic week can be obtained from Miss Elsie Howard, 400 Rialto Bldg., Kansas City, Mo.

KANSAS CITY CLINICAL ASSOCIATION

This Association, composed of 135 members, is arranging for and financing the fall program, assisted by the Convention Bureau. The Society publishes a daily bulletin, listing all the clinical events of hospitals in the city. A copy of this bulletin is kept in the Convention Bureau Information Booth, Union Station, and is available daily there, at hospitals and at office of Society, 400 Rialto Bldg. The Society was formed to bring about a greater interest in medical advancement throughout the Southwest, and it is asking for the support of the general practitioner and specialist in this territory. The leading hospitals in Kansas City have been placed at their disposal for the clinics. It invited the prominent medical men, who will be the distinguished guests at the clinics. These guests will also attend the various luncheons and specialty meetings at the request of the Society. Dr. James R. McVay, 400 Rialto Bldg., is secretary.

WILL YOU EXHIBIT?

Manufacturers who desire to exhibit at Omaha and Kansas City this fall should make early reservation of space. The meeting in Omaha will be held September 18, 19, 20 and 21, the Interstate Society of Radiology and Physiotherapy meeting the first two days, and the Medical Society of the Missouri Valley the last two days. In Kansas City, the Medical Association of the Southwest, Southwestern Urological Association, and Kansas City's fall clinics, will occupy Convention Hall, October 8 to 13. Many distinguished men of international reputation will be present. For blue prints and further information, address Dr. Charles Wood Fassett, Director of Exhibits, 115 East Thirty-first street, Kansas City, Mo. Reservations by wire will be given preference.

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

PHYSIOTHERAPY TECHNIC

By C. M. Sampson, M. D., formerly of the Physiotherapy Service, Walter Reed U. S. Army General Hospital No. 9, Lakewood, N. J.; Formerly Chief of Physiotherapy Service U. S. Army General Hospital No. 14, Fox Hills, Staten Island, N. Y., later Hoff General Hospital; Formerly Reconstruction Officer U. S. Public Health Service Hospital No. 61, Fox Hills, Staten Island, N. Y., Later U. S. Veteran's Bureau Hospital No. 61; Formerly in charge Reconstruction U. S. Public Health Service Hospital No. 70, New York City. C. V. Mosby Company, St. Louis, 1923. Price $6.50.

The author of this text-book, Major C. M. Sampson, has been giving excellent short courses upon Physiotherapy about the country during the past year. This book is really the text of his lecture course, and as such, affords a larger audience to this physiotherapeutic optimist.

Since the elimination of the terms "medical electricity" and "electro-therapy" and the adoption of the monicker "physio-therapy," this subject has found a more tolerant attitude by the general medical profession. Electricity always has smacked of the quack. Physio-therapy is a more dignified word, more comprehensive, more practical and more correct.

There are many reasons why the World War should have gone on a little longer. Aside from the political reasons, there is this subject of physio-therapy. Sampson's enthusiasm and confidence have developed out of his actual experience in the reconstruction of disabled soldiers. France had developed this branch extensively in all her hospitals long before the war's termination. The present American interest in this field is almost entirely due to the profession's observation of good results in Veteran's Hospitals, etc.

Sampson has arranged his text in an acceptable manner. The early chapters describe the thermal, chemical, mechanical and electronic physio-therapeutic remedies; their application, indications, etc. Heat, diathermia, autocondensation, static modalities, actionotherapy; sinsusoidal, galvanic and faradic currents; massage, hydro-therapy—all these receive ample elaboration and illustration.

Then follows chapters upon specific diseases, usually chronic; nerve and muscle injuries, with case reports and analytical descriptions of technique and progress. Peripheral nerve wounds, Arthritis, Locomotor Ataxia, Pyorrhea Alveolaris, Hay Fever, Genito-Urinary Conditions—are chapter captions.

One chapter upon "Treatment of X-Ray 'Burns'" is commendable. We would prefer to use the term "roentgen reaction" as less stinging and more charitable. The chapter s full of good sound advice, though a trifle wild in spots. Sampson's technique is quite worth following, however. It surely does give results.

Major Sampson is a philosophic chap. Many of his expressed convictions possess a charitable sarcasm that is healthy and damages no one worthy of consideration. If every physician could read this book and take advantage of the metaphoric and similistic advice so generously supplied by Major Sampson, physiotherapy would be a greater help in general practice.

Avant, Medical Electricity! Welcome, Physio-Therapy!

E. H. SKINNER.

The Management of an Infant's Diet

A Rational Procedure in Summer Diarrhea

For Infants of any age

Mellin's Food
4 level tablespoonfuls

Water (boiled, then cooled)
16 fluidounces

Give one to three ounces every hour or two, according to the age of the baby, continuing until stools lessen in number and improve in character.

Milk, preferably skimmed, may then be substituted for water—one ounce each day—until regular proportions of milk and water, adapted to the age of the baby, are reached.

Mellin's Food Company, Boston, Mass.

IGESTIVE DISTURBANCES IN INFANTS AND CHILDREN

By Charles Gilmore Kerley, M.D., Consulting Physician to the Babies Hospital, New York and Leon heodore Lewald, M. D., Professor of Roentgenology, lew York University Roentgenologist to St. Luke's lospital, New York, with a note on the Surgery of ıfants by William A. Downes, M.D., Clinical Profes-ɔr of Surgery, Columbia University; Attending Surgeon, Babies Hospital and St. Luke's Hospital, New ork. Published by Paul B. Hoeber, Inc., Publishers f the American Journal of Roentenology and Radium herapy. 67-69 East 59th Street, New York, N. Y. rice $12.00 net.

It is a great pleasure to review this Third Volume of he Annals of Roentgenology, which is entitled: "Diestive Disturbances in Infants and Children", by Docors Charles Gilmore Kerley and Leon Theodore Le-Vald, because the book is so beautful to look upon, o handle and to read. The authors have amassed splendid array of information under a generous title.

The Table of Contents affords the best survey as ollows: I. Technique. II. Esophagus, Atresia, Stenosis, Cardiospasm. III. Stomach; Pyloric Stenosis, hronic Dilatation, Ptosis, Syphilis. IV. Intestinal ract; Dilatation and Ptosis of the Cecum, Appendicis, Elongated Colon, Megacolon, Congenital Dilatatd Colon, Hirschsprung's Disease, Intussusception, olvulus, Non-rotation of the Colon. V. Influence of osture on Digestion. VI. Hernia of the Diaphragm. VII. Tuberculosis Peritonitis. VIII. Transposition Viscera. IX. Abdominal Tumors. X. Foreign Bodies in the Alimentary Tract.

There are 117 roentgen reproductions and 49 illusrations to amplify the text.

The chapter upon the Intestinal Tract is especially aluable. It gives the standard X-Ray facts for sucessful appreciation of lumenal topography. But vastly more important, it furnishes the clinician new interpretative information upon the therapeutic and dietetic management of constipation in children. Certain congenital origins and statural types of constipation are freely discussed. Undoubtedly, the general practitioner requires education to lift him out of the cathartic therapy rut. The patient falls into daily or interrupted catharsis all too easily.

The large plate illustrations which take up more than half the volume are excellent for reference, comparison and study. Throughout the book the legends are triplicated in English, Spanish and French. Possibly too many reproductions are of adults but they serve their purpose. The price of this volume is considerably less than the companion Annals of "Law upon Mastoids" and "George upon the Pathological Gall Bladder." It is a pity that such valuable educational volumes cannot be endowed to reduce their price for more universal distribution.

The early systemic symptoms of digestive diseases require more appreciation and respect. Poor digestion wrecks happiness. Adult dyspepsia is frequently the result of a stormy intestinal childhood and adolescence. Duodenal and gastric ulcer, gall bladder disease and appendicitis and other terminal pathologic conditions are the result of long-standing intestinal disturbances. We must pay more attention to the early symptoms of these diseases, so that we can alter the trend of intestinal events that eventually lead to the well recognized and localized terminal pathologic entities.

Therefore, we recommend this volume. The authors furnish evidence of the early symptoms of intestinal diseases. Incorporating these lessons into general and pediatric practice will help vastly.

E. H. SKINNER.

NOTE.—The Medical Herald's Kansas City office will supply any book reviewed in this department at publisher's price, prepaid. We can also supply any book by any publisher in the world. If an order for two books be sent at any one time, the purchaser will be entitled to a six months' subscription to the Herald.

A well-balanced compound of Cascara, Podophyllin, Colocynth and Hyoscyamus.

Pil. Cascara Comp.

(Robins)

Mild, 1 Grain—Strong, 4 Grains.

They normalize peristaltic action instead of inhibiting it, as so many evacuants and cathartics do.

They stimulate a flow of secretions, thus encouraging a normal physiological evacuation.

A trial, the most convincing argument. Send for samples and literature.

✤ ✤ ✤

Campetrodin

Campetrodin is a convenient, soothing application for wounds, bruises, sprains, burns, boils, ulcers, etc. Heals rapidly.

Campetrodin—Double Strength, as an inunction, is especially valuable in reducing swollen glands and relieving obstinate deep-seated rheumatic and neuralgic pains.

Samples to Physicians on Request.

A. H. ROBINS COMPANY

RICHMOND, VIRGINIA, U. S. A

HIGH FREQUENCY PRACTICE FOR PRACTITIONERS AND STUDENTS

By Burton Baker Grover, M. D., author of Handbook of Electrotherapy; President of the Western Electrotherapeutic Association, 1919-1920; Fellow of American Medical Association; Fellow of Electrotherapeutic Association. Illustrated with ninety-five engravings. Second eddition. Kansas City. The Electron Press, 1923.

This manual of Dr. Grover's is an essential need for the practicing physician of today; for the fact remains, whether admitted or not, that but few of us are aware of the possibilities of high frequency currents. The use of electricity is forcing itself upon us. There is a legitimate field for it and the increasing number of doctors who employ it are fascinated and surprised at its therapeutic value. To get results one must use it intelligently. There is no work on the market today so useful, so free from verbosity and perplexing intricacies, so primer-like yet satisfying as this work of Grover's. The same may be said of his chapters upon blood pressure. He gives the result of years of study and presents a scheme most illuminative and helpful. The two subjects, high frequency and blood pressure, are so closely associated that one must go through the book to realize the fact and to grasp the possible influence pleasantly resulting from the use of high frequency currents in such cases. The book is written in a most readable vein and contains a fund of information of profound value. It comes to us not from a theorist, but from a busy doctor who practices what he preaches, with profit to himself and benefit to his patients. J. M. B.

INTERNATIONAL CLINICS

A quarterly journal of illustrated clinical lectures and especially prepared original articles. Edited by Henry W. Cattell; published in Philadelphia by Lippincott, Vol. 2, Series 33, Cloth, pp 304.

In this number the most interesting contributions are those on Insulin by Banting, Harris, Hamburger, and Pettey. Banting's article is noteworthy for its brevity and the clearness of its statement. And it is important to note that he says that 80% of the diabetics do not need insulin. "If while on the basal requirement diet, the patient becomes sugar free, the diet is raised and if the patient is still sugar free when on 500 calories over and above his basal requirement, he is not considered sufficiently severe for insulin treatment at the present time."

The diagnosis and treatment of allergic disease by Leeuwen of Holland, is also a timely contribution to this number.

Cumstom of Geneva, Switzerland, contributes an article on Problems in Surgical Diagnosis, Pathology and Treatment.

BE GLAD, LITTLE CHILD

'Tis a world of wonderful things,
Of wind and water and wings,
And the tiniest bird
That ever was heard
Of God and his goodness sings.

So be glad, little child, and say,
"Mine is a wonderful way;
They all are for me,
The flower and the tree,
Love, and the light of day."

—Miriam Clark Potter



Medical Melange

THE DOCTOR'S DAUGHTER

By Leo S. Robinson

When Daddy signs his name
He always writes M. D.
That's so the people all will know
That he belongs to me.

For M. D. means My Daddy,
Or something just the same
And that is why he always
Puts those letters on his name.

Some letters in his name are small
But these are not you see
He always makes them big like that
Because he's proud of me.

PRICE OF ILETIN

According to Eli Lilly and Company, the statements appearing in various publications and in the lay press, to the effect that Iletin, used in the treatment of diabetes mellitus, is available in very limited amounts and is very high in price, are grossly erroneous. As a matter of fact, the company states taht it is in position to supply quantities adequate to any conceivable demand and at extremely favorable prices. President J. K. Lilly recently declared it was the avowed policy of the company to price Iletin as low as consistent with a perfect product, efficient distribution and moderate manufacturing profit. Eli Lilly and Company feel that this beneficient agent should reach the consumer at the lowest possible price, and to this end the thoughtful co-operation of physicians and pharmacists is invited. In the comparatively short time that Iletin has been available, improved manufacturing facilities and production economies have made possible a lowering of the cost with a consequent reduction in price to pharmacist and physician. Eli Lilly and Company express the thought that just as soon as it is possible to make a still lower price change, it will be done. Iletin is distributed through the drug trade in accordance with the Lilly Policy. Correspondence concerning its availability, dosage, method of ordering, etc., etc., are invited by Eli Lilly and Company, Indianapolis, Indiana.

A "HIT" WITH PHYSICIANS

Physicians are showing a keen interest in Super-Concentrated Diptheria Antitoxin. The principal advantage of this product, which was introduced by the Mulford Laboratories in 1922, may be summed up in the slogan—less bulk—less pain—quicker results. These are features that can be appreciated by the patient as well as the physician. Other advantages are that it is isotonic with the blood, low in total solids and easy to administer. One of the leading medical authorities in this country when he first saw Super-Concentrated Antitoxin, expressed himself to the effect that if he were treating his own child, he would gladly pay three times as much, if necessary, to secure the advantages of this product. Fortunately, however, Super-Concentrated Antitoxin does not cost three times, nor even twice, as much as the ordinary standard antitoxins, and, therefore, it is easily within the reach of the average family.

DIGITALIS TINCTURES

It is no longer necessary for the physician to take the chances on digitalis he had to take a few years

When A Tonic Is Needed

and the functions of the body are depressed and deficient, what restorative or reconstructive do you know of that will do more for the weak and debilitated than

Gray's Glycerine Tonic Comp.?

What tonic when given to patients convalescent from *influenza, bronchitis, pneumonia, diphtheria, scarlet fever* or *measles,* or from *surgical operations,* will so promptly stimulate the appetite, improve the digestion, increase the assimilation of food and thus restore vitality and strength, as Gray's Glycerine Tonic Comp.? **The answer to the foregoing is found in the thousands of medical men who use it regularly whenever a tonic is indicated. Their experience in countless cases has conclusively shown them that it has no superior in its field of use.**

If you are not familiar with the therapeutic efficiency of Gray's Glycerine Tonic Comp., a trial in some case will show you the advantages of using a remedy that for over a third of a century has never failed in its responsibility and good faith to those it has served.

The Purdue Frederick Co.

185 Christopher Street, New York

ago. Then he could do no more than try it out on the patient. Now it is assayed by test on animals, and preserved by various devices, among which are the placing of the tincture in small amber-colored vials, the addition of carbon dioxide to prevent access of atmospheric oxygen, and the dating of the package. Digitalis leaves vary greatly in their content of the active medicinal principle, and while a tincture made from leaves of any strength can be built up to standard by evaporation, a safe and better way is to use standardized leaves—leaves that have been shown by physiologic test to be so active that a tincture made from them by the usual method will not require any concentration. At the same time it must be remembered that digitalis tinctures WILL go to pieces, gradually, and it is an advantage therefore to have the tincture above the U. S. P. standard to begin with. All these conditions seem to be fully met in the special tincture of digitalis which the makers, Parke, Davis & Co., designate as Tincture No. 111, a recent addition to the P. D. & Co. list.

THE ANEMIA OF INNUTRITION

So frequently observed in patients of all ages, is usually symptomatic of general devitalization. Fresh air, nourishing food and Gude's Pepto-Mangan constitute a reconstructive trinity of marked and certain value, the last named agent increasing the oxygen-carrying capacity of the blood stream, thus aiding directly in the absorption and appropriation of the increased food supply. Some physicians are, no doubt, unaware that Gude's Pepto-Mangan is now prepared in the form of cleanly and convenient tablets, two of which are equivalent in iron and manganese content to one tablespoonful of the liquid product For the special convenience of business men and women and ambulant patients generally, many physicians are accustomed to prescribe Gude's Pepto-Mangan, liquid, after meals at home, and the tablets for the midday dose, when bottle and spoon would be inconvenient. Samples and literature are obtainable from the manufacturers, M. J. Breitenbach Co., New York.

FOR LAZY, INACTIVE STOMACHS

"Seng is a jewel indicated," says Dr. J. W. McN——. "I do not maintain that it will cure all cases of dypepsia, but I know it will tone up a weakened stomach. I use very little pepsin and have little faith in it, since I feel that you cannot cure a weak stomach by doing its work. Seng urges and encourages the lazy glands to restart the process of digestion."

TREATMENT OF SUPPURATING WOUNDS

Many practitioners have found to their great satisfaction that the healing of suppurating processes may be hastened by the use of Ecthol (Battle). In addition to exerting a germicidal influence, it adds also to cellular resistance, as a result of which luxuriant bacterial growth becomes inhibited. There comes a time when the virulence of the process becomes reduced to the point where the resistance of the tissues are able to turn the tide toward the development of healthy granulations and the wound closes. The internal use of Ecthol (Battle) has been found to be of distinct service in such cases.

A RELIABLE BROMIDE PREPARATION

"I have been in active practice," states Dr. H. D—— "for the past fifteen years, and have used Peacock's Bromides very nearly every day for ten years. I can truthfully say that I have yet to find a single instance in which its action has not given me the best possible results. Can I say this of other bromides? Most assuredly I cannot. You cannot afford to press the dose in other products as you can with Peacock's Bromides. I am firm in my views on this proposition, and do not hesitate to say that it is the best preparation of its class available to the medical profession."

SODIUM THIOSULPHATE INTRAVENOUSLY

Research work on animals by Loeser, in addition to clinical demonstration, has resulted in the production of a standardized intravenous solution of Sodium Thiosulphate. Sodium Thiosulphate is known chemically as a reducing agent, and a study of its pharmacology is interesting in its bearing on this reducing property called into play in the treatment of arsenical dermatitis and other metallic poisoning. It has been demonstrated to be of value in dermatitis, erythroderma, various types of eczema, furunculosis and urticaria. After clinical trial, Loeser has determined on a solution of 10cc. containing one gram (15 grains) as the safe average therapeutic dose. A biological test of fifty times this human dose, injected intravenously into white rats, has been established to control this solution. Physicians desiring complete literature, references and description of Loeser's Intravenous Solution of Sodium Thiosulphate should address the New York Intravenous Laboratory, 100 West 21st Street, New York.

OBSTINATE SUPPURATIVE PROCESSES

In the treatment of long continuing suppurative processes, sinuses for instance, it has been found that Ecthol (Battle) is of definite value. In some cases such suppurating processes have made their first response when dressed with Ecthol (Battle). In addition to its gerimicidal influence, it increases cellular resistance as a result of which luxuriant germ growth becomes inhibited until finally the point is reached where the increased resistance of the involved tissues turns the tide toward healthy granulation. The internal administration of Ecthol (Battle) in conjunction with its local employment, is recommended as it adds to bodily resistance.

RUN DOWN SCHOOL CHILDREN

One of the factors involved in the backwardness of some children in their studies at school, is reduced physical strength. Too much care cannot be shown such children. With defective metabolism, impoverished blood stream and flabby muscles, these children all too frequently fall behind in their studies and in some instances must be taken from school. In just such cases Cord. Ext. Ol. Morrhuae Comp. (Hagee) finds one of its greatest fields of usefulness. Under its use metabolism improves, the blood stream becomes richer and the little patient is more nearly equal to his school task. In addition to its definite reconstructive qualities, Cord. Ext. Ol. Morrhuae

In Acne DERMATONE Does
ZEMATOL Does in Eczema
Use Them and Prove Them
Backed by 25 years of successful clinical experience.
Catalog of pharmaceuticals mailed on request
CHICAGO PHARMACAL CO.
645 St. Clair Street, Chicago, Illinois

:omp. (Hagee) is extremely palatable and acceptable) the most fastidious stomachs. It may be continued ver long periods without causing distress.

THAT LITTLE CHAP OF MINE

To feel his sturdy hand in mine
So clinging, and so warm
To know he thinks me strong enough
To keep him safe from harm
To see his simple faith in all that
I can say or do
It sort of shames a feller but it
Makes him better, too.
And I am trying hard to be the man
He fancies me to be
Because I have this chap at home
That thinks the world of me.

I wouldn't disappoint his trust for
Anything on earth
Nor let him know how little I just
Naturally am worth.
But after all it's easier that
Brighter road to climb
With his sturdy hands behind me to
Push me all the time
And I reckon I'm a better man
Than what I used to be
Because I have this chap at home
That thinks the world of me.

ATONIC CONSTIPATION

Atonic constipation is characterized by a relaxed, nactive gut favoring fecal impactions, particularly at he flexures of the intestine, and predisposing to in-ammatory conditions, resulting in colitis. Nujol will revent the formation of large fecal masses, thereby :ssening bowel distention with its consequent inhibi-on of peristaltic nerve impulses.

THE BEST BOOKS
ON
X-Ray and Electro-Therapeutics

Grover—High Frequency Practice—(Just out). $4.00
Grover—Handbook on Electrotherapeutics "Last Word". 4.00
Plank—Actinic-Ray Therapy (new edition) 5.00
Pope—Practical Hydrotherapy 5.00
Hirsch—Principles and Practice of Roentgenological Technique 10.00
Ivy—Interpretation of Dental and Maxillary Roentgenograms. 4.00
Martin—Practical Electrotherapeutics and X-Ray Therapy 4.00
Metzger—Principles of X-Ray Technic for Diagnosis. 2.75
McCoy—Dental and Oral Radiography. 3.00
Cumberbatch—New book on Diathermy, 44 illustrations 6.00
Morton—Textbook of Radiology (X-Rays). 4.50
Prince—Roentgen Technic (Diagnostic). . . 2.75
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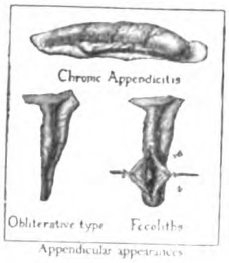
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Original Contributions
(EXCLUSIVELY FOR THE MEDICAL HERALD)

THE COMPLICATION OF PURPURA WITH GESTATION

By GEORGE CLARK MOSHER, M. D., F. A. C. S.,
Kansas City, Mo.

PURPURA haemorrhagica is a rare complication of pregnancy. In the literature are 39 cases which have been reported. There is, of course, no method of estimating the number which may have been actually encountered and not recorded. Apparently multiparae are the more frequently affected, as published observations show that 28 cases were found among women between the second and fifth pregnancies, against five primiparae and six cases after the fifth gestation.

As to age incidence, purpura occurred twenty-two times between the ages of 22 and 35, six times under 22 and eleven times above 35 years.

Purpura seldom appears throughout the gestation; however, there is a marked predominance between the sixth and seventh months. One notes that in 22 cases it appeared before the eighth month, in 12 before the sixth month, and in five cases after the eighth month.

It is surprising how little the general condition of the patient in some cases is modified by purpura haemorrhagica. Often in the most alarming there may be no systemic disturbance whatever, although marked anaemia and a state of asthenia may develop as a result of the continued loss of blood. With this may occur gastro-intestinal upset, thready pulse, and fever. There is often oedema and a trace of albumin in the urine.

Stephen Mackenzie has divided purpura into auto toxic, vascular, mechanical and neurotic. Doubtless in pregnancy we have a combination of the vascular and toxic groups with a neurotic influence. The case of haemorrhagic diathesis reported subsequently in this paper belongs, it is believed, to the group described first by Denys and Hayem, and since then has been studied carefully by Bensaude and Rivet, Pratt, Duke and others.

Duke reported a series in 1910, in which he attempted to prove that both haemorrhage and purpura in one type of case could be attributed entirely to an almost complete absence of blood platelets, and in doing this found, after study of normal individuals and patients with numerous diseases, that this type of haemorrhagic diathesis had invariably a reduced platelet count whenever they had a tendency to bleed. The tendency to bleed was studied by means of the bleeding time—not the coagulation time. This was prolonged in both human subjects and in experimental animals whenever the platelet count was reduced to a certain level (10,000), and this was associated in humans with bleeding from mucous membranes and ecchymoses. In one case, in which the count was reduced below 3,000, the patient bled from scratches, pin pricks, minute injuries made on the gums by the chewing of rough food, from acne pustules, hang nails, in fact from any abrasion whatever, either of the skin or tissue. He also found that the condition could be relieved immediately by direct transfusion of blood, which operation caused instant increase in the platelet count. The platelets were found to be short lived, under these circumstances, and disappeared in from 3 to 5 days, at which time the haemorrhagic diathesis, in all its glory, returned. Haemorrhagic diathesis was relieved, in some of his cases, by a spontaneous increase in the platelet count. He felt, from a study of a series of cases in 1912, that one group of haemorrhagic cases could be separated from a variety of other types by a clinical picture which was characterized in every instance, first, by a tendency to bleed into the skin and tissues, and from every abrasion, no matter how made; second, by an enormously reduced

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platelet count—from one thousand to fifty thousand; third, by a normal coagulation time; fourth, by a prolonged bleeding time —10 minutes to 1½ hours (the normal bleeding time is less than 3 minutes), and, fifth, by a non-retractile blood clot. These cases were analogous, he thought, to those described by Denys, Hayem, Pratt and others.

This disease was found to be of varying etiology. It was noted complicating diphtheria, tuberculosis, nephritis, aplastic anaemia. Similar illnesses were reported in the literature complicating lymphocytic leucaemia, haemorrhagic smallpox, typhoid fever, and pneumonia. The case which is to be reported subsequently was similar to these, it is believed, and occurred as a complication of pregnancy.

In a series of thirty-eight animal experiments in which benzol, diphtheria toxin, and tuberculin were injected into animals, in only those in which the platelet count was markedly reduced was there any abnormal tendency to bleed. In one animal treated with diphtheria toxin, typical purpura haemorrhagica with a very low platelet count, non-retractile clot, and prolonged bleeding time was produced.

The normal platelet count, as given by different observers, ranges between 200,000 and 400,000. Hayem in his cases of purpura haemorrhagica made counts of 89,000, 62,000 and 41,000. Bensaude and Rivet studied fresh blood films in five cases of purpura haemorrhagica and noted that the placelets were greatly reduced. In studying purpura haemorrhagica complicating nephritis, Pratt noted a count of 9,000. Selling, in a case of benzol poisoning with purpura haemorrhagica, noted a platelet of 3,000.

Hayem, Denys, Bensaude and Rivet. Duke, Minot and other, all agree in their observation of a striking tendency to bleed in patients with very low platelet counts, and in several instances note an amelioration of symptoms with a rise in the count. Duke, with his patients and animals, noted haemorrhagica diathesis in mild form whenever the count was below 60,000, and in severe grade when the count was below 10,000.

It is interesting to mention in this connection the origin of blood platelets, since it seems likely that a certain type of purpura haemorrhagica is due either to a reduced formation, or to an increased rate of destruction of platelets. The most interesting work in this relationship is that of J. H. Wright, who states, on the basis of microscopic examination of the bone marrow, that the source of the blood platelet is the megacariocyte of the marrow, and that platelets are formed by the budding off of pseudopods which are projected into the capillaries from the megacariocytes. His observations have been corroborated by other observers.

The characteristic symptoms of purpura of the platelet-free type are:

1. Petechia and ecchymosis. The rash may be modified by any co-existing skin lesions, or by mechanical agents, such as that produced by a bruise or by rubbing.
2. Bleeding from mucous membranes. This accompanies the petechia almost always, and ecchymosis usually.
3. Prolonged bleeding time. This was observed in all cases where there was a tendency to bleed with a return to normal immediately if the platelet count rises. This feature is found constant and distinctive, and it is the most reliable guide we have in showing the severity of haemorrhagic diathesis in this type of trouble.
4. A reduced platelet count. This ranges from 60,000 to nearly nil. Usually the count is so reduced that the platelets can hardly be found in either counting chambers or blood smear. A rise above 10,000 is almost invariably associated with a reduction in the bleeding time, and an improvement in the patient.
5. Normal coagulation time.
6. Non-retractile clot. Retractility of the clot seems to depend on the presence of blood platelets, and returns when the counts rise to a certain limit (40,000).

The fundamental cause of many types of purpura is still unknown. Some evidently occur in connection with infections and with intoxications, and this would seem to point to a relationship of cause and effect. While it is not capable of demonstrable proof this suggestion must be given consideration.

It has been argued that purpura in pregnancy is no different from that in the non-gravid woman. A few observations of Henri Vignes on the changes in the blood of the normal pregnant woman are pertinent and interesting. In normal gestation he finds,

1. The blood mass is augmented by 8 per cent, through superabundance of serum.
2. The number of red blood cells is clearly diminished, as is also the haemoglobin ratio.
3. The cells have the property of sedimenting with greater rapidity in pregnancy. Following the technic of Lingemeier, it takes 4 to 6 hours to precipitate in vitro, completely the blood cells of a woman not pregnant nor in her menstruation. It requires less than 3 hours to produce the same phenomenon in a woman 7 or 8 months pregnant.
4. There exists as light leucocytosis, more marked in primiparae. Baer gives the figures as 11,000 for primiparae, and 6,000 for multiparae. These figures are increased by 50 per

cent during labor, and especially if there be an early rupture of the membranes. The increase is more particularly in the polymorphonuclears.

Consequently, when we consider that the barriers protecting the woman non-pregnant are broken down by the blood change occurring in the sixth or seventh months of pregnancy, there should be reason for her greater danger from purpura.

Ferroni believes in the classic theory which attributes the haemorrhagic troubles of purpura to a lesion either of the kidney or the liver, under the influence of the nervous system, this applying more distinctly to purpura gravidarum.

The new ideas of E. Frank and Kaznelson, who speculate on the preponderant role played by the spleen in the pathology of purpura, are interesting, but they are not as yet confirmed by a long experience.

John Phillips, in an elaborate discussion of purpura in menstruation and pregnancy, says that women with amenorrhoea or irregular menstruation have a disposition to erysipelas of the face, erythema nodosum, purpura simplex, and purpura haemorrhagic, which he thinks are only degrees of the same haemorrhagic disorder. He reports three cases of purpura in non-pregnant females occurring at the menstrual time, one of whom died of haemorrhage.

Peusch reports a woman of 21, who, a year after the birth of a child, had a severe headache and petechiae. In ten days a normal menstruation of three days' duration occurred. Her next period was at the proper time, but excessive. On the fourth day she fainted. Haemorrhage from the bowel was profuse and a uterine haemorrhage followed, which continued for ten days. After several weeks the rash disappeared and she made a slow recovery.

From the foregoing description two facts are apparent:

1. Purpura may be related to a known disease of which it is a symptom, or it may be a complication showing the violence of the pathogenic germ.

2. It may be only the expression of a state of which the cause is unknown, residing probably in the functional modification brought by the pregnancy into the maternal organism. This last series of cases is denominated idiopathic purpura.

Among the affections which determine purpura in pregnancy is scurvy, which Zangemeister remarked in his case. He argued that the scurvy shows symptoms so slightly at variance with the gastro-intestinal conditions, progressive anaemia, muscular and articular pains, and cutaneous haemorrhages, which one meets in gestation, that differentiation is difficult and the same form of disturbance is likely responsible.

The evolution of symptoms is similar to those in the cases reported by Bregier and Ferroni, where the general picture resembled scorbutic purpura, but the affection taking a serious turn may go on in one instance to a fatal termination, while in another the patient recovers her equilibrium with no untoward result.

Well-defined haemophilia is always easily recognized, but there are in addition instances like that which Grazzani reports of women not haemophiles who, nevertheless, bleed excessively when they are pregnant and in labor and also postpartum. This circumstance is also noted by Phillips and Rowe, as if pregnancy had reinforced the tendency of the scorbutic cachexia responsible for much disorder in the maternal organism, interfering with its repair, even after the expulsion of the products of conception.

Diehl, in a classification of purpura, includes scorbutic purpura and maintains that the petechiae are in this case secondary to the scorbutic cachexia. Purpura due to tuberculosis, malaria, and cardiopathies are analogous. He says to differentiate scurvy in pregnancy is difficult, as the gestation itself is often accompanied by alimentary disturbances reflex in origin.

From a clinical point of view the facts present themselves in the great majority of cases as follows:

The victim is usually a multipara. Her age is from 22 to 35 years. The patient shows at first the appearance of good health, and the family history may be negative. Her former pregnancies have been normal and each one terminated with the birth of a full term, living infant. Her present pregnancy may have been normal or there may have been a complication of metrorrhagia of sufficient importance to attract attention, when the woman finds herself again enciente. The beginning of the pregnancy is not marked by any serious accident. At this time she may have noted a peculiar odor which seems to come from a fermentation of gastro-intestinal origin. To all appearances, however, she is in good health and her gestation shows no untoward symptoms until sometime in the sixth or seventh month she experiences a vague discomfort, loses appetite, and complains of headache; she has palpitation and a gastro-intestinal trouble which becomes more marked. Some time later there appear haemorrhagic spots on the skin, then petechiae, which are at first discrete, but later become confluent. These spots

usually appear in successive crops. The woman finds that her gums are tumefied and painful and begin to bleed; epistaxis becomes troublesome; she usually has a persistent diarrhoea; she consults a doctor, who finds that the fetus is living, but that the mother has purpura with symptoms of grave character. The patient is usually pale and depressed, short of breath, although no abnormal symptoms can be found in the heart, lungs, or other organs. Blood pressure may be normal, the pulse is rapid, corresponding with that of a light fever. A trace of albumin is usually found. She may improve. The reverse is generally the case. Gastro-intestinal troubles increase. Mucous haemorrhages are frequent. The patient bleeds from the mouth, the nose, the bladder, and the rectum. She becomes rapidly anaemic and exhausted, is confined to her bed. Haemorrhages increase from all mucous surfaces, the temperature rises. She goes into rapid labor without great pain. She is delivered normally and may begin to improve. Generally, however, she dies after a few hours or a few days because, for some reason, the organism cannot re-establish itself after expulsion of the products of conception.

Prognosis

The prognosis in cases where purpura haemorrhagica complicates pregnancy becomes very grave. The outcome is generally less serious when an early abortion ensues. Only occasionally a patient goes to term and recovers. Involution is more or less prolonged.

In half of the cases the fetus perishes in utero, or dies within a few days following the birth. It presents, usually, however, a normal appearance. Very rarely there develop haemorrhagic accidents to the fetus, analogous to those of the mother.

A brief list of case reports instructs one on the prognosis.

Phillips, two cases, British Lying-in, 1887. One, age 32, para-VII, recovered, the other died of haemorrhage the second day following delivery.

Peuch, primipara, sixth month, epistaxis, petechiae, no external haemorrhage, died the fifth day.

Peuch, para-V, age 30, eighth month, petechiae suddenly overspread the entire body, fetus expelled the same night, postpartum haemorrhage, death.

Budd Van Sweringen, Ft. Wayne, 1905, primipara, sixth month, whose cervix had been thrice cauterized by preceding attendant for pernicious vomiting,—found nose bleeding and gums oozing, bloody urine, profuse vaginal discharge, profound dyspnoea, petechiae general over body, slight temperature. Symptoms cleared up in a few days. Delivered 3 months later with no purpuric symptoms.

Robert Barnes, Brit. M. J., para-III, sixth month, rheumatic pains, fever, premature fetus lived 3 hours, purpuric spots appeared same day. Prostration, delirium and haemorrhage were followed by death in a few hours.

Barnes and Byrnes, Brit. M. J., Nov., 1867, patient developed spots of purpura haemorrhagica, subconjunctival ecchymoses, prostration and delirium, died day after delivery. Two days later her husband developed variola.

Wiener, Arch. Gynaek, 1887, xxi, 281, haemorrhagic purpura in two sisters: the first dies suddenly after rash appears, the second is taken 14 days later in seventh month with identical symptoms, is delivered next day. During delivery a scarlatiform rash appears on head, neck, and trunk, haemorrhages of skin present themselves, bloody expectoration, haematuria, sanguinolent stools. Woman dies third day with no elevation of temperature. At the time an epidemic of small pox prevailed in Breslua.

Ferroni, Rome, 1903, para-IV, age 31, sixth month, discrete petechial rash localized on thorax and lower limbs. After 12 days bloody stools, albuminuria, profound anaemia. Suddenly delivered voluntarily of living baby showing no traces of purpura. Two hours later after declaring she felt better, she suffered profound dyspnoea which was followed by loss of consciousness and death.

Diehl, Ztschr. f. Geburtsh., 1899, p. 218, reports a para-VII, age 36, no history of bleeders, six confinements normal. Patient expelled dead fetus at eighth month, no notable bleeding. Later she developed general purpuric haemorrhages, uterus at umbilicus became gangrenous and there was a vaginal discharge. Blood examination was negative. Six days later patient suffered violent pain, and petechiae and ecchymoses succeed in crops; she had no fever, but died on eighth day.

Hanot and Luzet, Arch. Exp. Med. & Path. Anat., 1891, xv, 772. Primipara, age 22, at term suddenly suffered occular disturbance and coma; petechiae and ecchymoses appeared, a macerated fetus was expelled. The next day patient went into deep coma, albumin was notable, and woman died. Autopsy showed cerebric spinal meningitis.

Le Clerc, Lyon medical, 1908, reports a haemophilic, age 32, para-V, with 3 living children, one a haemophilic. Purpura at third month with epistaxis, bleeding of gums, and conjunctival effusions. Fourteen days later she was delivered with slight loss of blood of a dead child. Blood examination showed polymorphonuclears 86 per cent, mononuclears 13 per cet, non-retractile clot, normal coagulation time. Patient died next day.

Treatment

As to the treatment of purpura haemorrhagica little is to be said. The use of drugs, either styptics, general remedies, or serums, has been found futile. Complete rest should be advised, and patient should eat nourishing food, and perhaps be given a tonic.

Transfusion is the only effective means of controlling the haemorrhage, and may have a prolonged or even permanent effect. The theory suggested by Duke that the increased blood platelet count—above 10,000—results in control of the haemorrhage, seems a plausible one to account for the favorable result.

Repeated transfusion may be required to tide over a temporary process which caused a platelet deficiency, and this may lead to a cure. At present no other method of treatment has been found worthy of trial.

Author's Case

The especial reason for the presentation of this subject at this time is that, during the

summer of 1922, the author saw in consultation with a very careful diagnostician and able practitioner, his friend, Dr. John I. Byrne, of St. Joseph, Mo., a case of purpura haemorrhagica complicating pregnancy, in a patient whose history is appended.

Mrs. A. F. S., age 36, para-VI. She has always been under the care of Dr. Byrne in each of her labors. Her first confinement was perfectly normal. The second child was born without untoward symptoms, but in the third month following the birth the mother developed an acute appendicitis. The appendix was perforated within 12 hours after the onset of pain. Operation was followed by a somewhat stormy convalescence and complete recovery.

The third pregnancy began soon after the recovery from the appendicitis. She became toxic and several convulsions were suffered, but the child was delivered near term and lived. Her fourth and fifth pregnancies were normal in every respect.

The present trouble developed in the sixth month of the last pregnancy with painful purpuric spots on the legs and abdomen, and these gradually affected the whole body. At the end of 3 weeks, haemorrhage from the gums and nose began. At that time 10 cubic centimeters of normal horse serum was given and this completely controlled the symptoms for 3 weeks. Then followed repeated haemorrhages from the bowels, nose and gums. She was desensitized and the horse serum was repeated, but it failed to stop the bleeding. A transfusion of 350 cubic centimeters of citrated blood was given. This partially controlled the haemorrhage but oozing was still observed. Various styptics, such as calcium lactate and stypticin, were given, but without effect.

Because of fear of more extensive bleeding consultation was called and it was decided, as the patient was becoming more anaemic and consequently weaker, that an induction of labor should be done before the control of the transfusion was exhausted.

Accordingly, in anticipation, another transfusion was done and the Voorhees bag was used to inaugurate labor pains. After 6 hours, a baby girl, weighing 6½ pounds, was delivered and lived 10 hours. The child seemed strong and well developed, but it was noticed in a short time that wherever it had been touched by the hands large ecchymotic spots appeared. The ecchymoses gradually increased although there was no haemorrhage from mucous membranes. This feature is of especial interest from the view point of heredity, since, in nearly all of the other cases found where purpura developed, there was no evidence of the condition being transmitted to the offspring. The authors quoted, where mention is made of the subject, usually observe that the purpura was not transmitted. This child was evidently a bleeder, and the source of its disturbance was like that of the mother, probably a toxaemia. In this particular, the case is, so far as we have been able to determine, unique in that both mother and child suffered from an identical condition.

There was no time during this last pregnancy any sign of kidney disturbance, and while the bleeding from othr mucous membranes was quite free, no blood was found in the urine. There was no excessive bleeding following the birth, and all other haemorrhages promptly ceased as soon as the patient was delivered. She was discharged from the hospital at the end of 2 weeks after the birth and is now, apparently, in better health than usual.

Conclusions

1. Purpura is a very rare complication of pregnancy. The literature includes 39 cases previous to this report.

2. Purpura in gestation is most often of the haemorrhagic form, characterized by these symptoms: haemorrhages from mucous surfaces; petechiae and ecchymoses; a remarkably reduced platelet count; prolonged bleeding time; normal coagulation time and non-retractile clot as in the non-gravid woman similarly affected. With the gravid woman, however, there is greater frequency of metrorrhagia.

3. Beside the purpura haemorrhagica associated with a definite pathological state complicating gestation, there are others more rare, which may be denominated idiopathic purpura of gestation.

4. Idiopathic purpura always manifests a harmful influence in gestation, usually resulting in premature delivery.

5. Multipara between the ages of 22 and 35 are most often affected. Usually the patient is in the sixth or seventh month of her pregnancy.

6. Purpura is frequently complicated by infection, but some cases occur without any real evidence of infection. Toxaemias appear responsible for a number of cases.

7. The offspring of purpuric mothers are not usually affected by the eruption, although in the present case, the child developed ecchymoses.

8. The fetal mortality is 50 per cent.

9. Nearly all cases of purpura haemorrhagica which go to term end fatally at the delivery, or soon after the labor, from haemorrhage.

10. No drug therapy is of the slightest avail. Direct transfusion of blood, keeping the platelet count over 10,000, is the only remedy. Repeated transfusion may be necessary to tide the patient over the period in which her platelet count is reduced.

BIBLIOGRAPHY

Willen. Cutaneous Diseases, 1808.
Olivere (de Angiers). 1827.
Bulkley, L. Duncan. Practitioner, 1876, xvii, 321.
Le Deuble. Ann. de gynec, ii, 1877, ii, 921.
Immerman. Ziemmssen H. B., 1879.
Reuch. Ann. de gynec, 1881.
Fothergill, Milner. Am. J. Obst., 1881, 38.
Mackenzie, Stephen. Brit. M. J., 1883, ii, 409.
Phillips, John M. Brit. M. J., 1886, Nov. 13.
Dursch and Hoch. Henoch Festschrift, 1890.
Diehl. Ztschr. f. Geburtsh, 1899, xli, 214.
Rowe. Women's M. J., Toledo, 1900, x 371.
Van Swerlngen, B. J. Am. M. Asso. 1905.
Bensaude and Rivet. Arch. gen. de med., 1905, i, 193.
Osler, Sir William. Brit. J. Dermatol, 1900, i, 227; Am. J. M. Sc., 1903, cx, 629; Brit. M. J., 1914.
Selling, L. Bull. Johns Hopkins Hosp., 1910, xxi, 33.
LeRound, L. G. J. de Physic, 1911, xiii, 56.
Duke, W. W. J. Exp. Med., xlv, 265; Arch. Int. Med., 1912, xix, 445; J. Am. M. Asso., 1910, lv, 1185.
Wright, J. H. J. Morphol., 1916, xxi, 263.
Christian, H. A. J. Am. M. Asso., 1917, lxix, 325; Oxford Medicine, 1920.
Minot, G. R. Am. J. M. So., 1916, clii, 46.
Ferroni. Ann. di ostet., 1903, p. 130.
Vignes and Stearnsie. Progress med., 1921.
Ledingham, J. G., and Bedson, S. P. Lancet, 1915, i, 311.
Lee, R. J., and Robertson. J. M. Research, 1915, xxxiii, 323.
Pingot, Georges. Paris: (monograph), 1922.

COLOR MYOPIA

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THE usual method of testing the color sense of railroad and marine employees is not sufficiently accurate to draw certain conclusions. It is possible for an individual to compare colored skeins perfectly and fail in the lantern tests.

Inasmuch as colored lanterns are used for signaling at night, it is more important that a man should interpret lights correctly than tell the colors of flags, and since there are some who are not color blind, that is who pass the usual office examinations, who cannot tell with certainty the color of a lantern afar off, it behooves us to be extremely careful in these examinations. Of course, this may be expected in those suffering from tobacco and alcoholic amblyopia, poisoning from digitalis, wood alcohol, santonin, etc., who may have a marked central scotoma for colors and who may pass the wool tests and even the light tests if the lights are large, bright and near. I simply mentioned these facts presuming all oculists know them. The poor vision which always goes with intoxication amblyopia, not improved by glasses but bettered in tempered light is sufficient to suggest retrobulbar neuritis which would in itself reject an applicant.

When a healthy man with 20/20 vision, with or without glasses, passes the Holmgren test also the lantern test, using comparatively large lights, he is generally considered proficient. Yet, he may be one of the most dangerous employe on a road, for having passed the examiner, he may not realize that for small and distant lights he is color blind. The so-called color myopia. It is for this reason we should always complete the examination with the lantern, starting with a large light and gradually decreasing the size of the window until the small hole of the Wilson lantern is reached. This hole has a diameter of about 2MM and when well illuminated behind a red or a green glass at twenty feet similates an ordinary lantern one-half a mile or more distant. The vast majority of men who are not color blind and who have perfect sight can easily tell these lights at twenty feet in a dark room. It is more difficult to recognize the blue light; then twelve to fifteen feet should be the limit. But the examiner should remember that many men have trouble to tell a blue from a green light if the lights are small and there is no way to compare them. But blue is not used in railroading as a compliment to red, so one hesitating over that color ought not to be condemned.

Color myopia is not unknown to those who examine large numbers of railroad men or sea men; but it is not suspected by many who are called to pass upon a man's color proficiency for few use the lantern or resort to the field tests. The reason is, most authors do not refer to color myopia in direct terms; they seem to ignore the importance of this form of Daltonism, being satisfied with term, feeble color sense.

I am not prepared to discuss the cause of color myopia. I simply wish to suggest the importance of searching for it in all applicants using a small bright light at twenty feet and rejecting all who confuse red and green under these conditions. Dark red and dark green glass should not be used to test for color myopia, because not sufficient light passes through them to make the colors brilliant. The colors should be clear and perfect, exactly as we see them when passing through the railroad yards at night. One may use disks of red or green glazed paper pasted on a white or black background and calibrated by the examiner's visual index, provided he is not color blind himself and that a corrected error of refraction is not greater than 2.D. Such color disks are seen by reflected light, consequently they are not so bright as the lantern lights illuminated by transmitted light.

Since these examinations are very trying it is well to remember the cautions given by the railroad companies to their examiners. Viz., not to examine the sight of applicants or employees if they are nervous, frightened or exhausted, which may be the case if they have traveled long distances in the night time to reach the examiner.

These cautions suggest the question of Hemeralpoia. Is the hemeralopic blind also for colors? This I cannot answer since I have never had an opportunity to test such persons, nor have I had the fortune to test the color sense of one with Retinitis Pigmentosa. Such men are not apt to seek employment on railroads, but should they be accepted they would soon discover their weakness to the bosses. We must turn to our naval confrers for information of the effect of bad food and exhaustion on the night color sense.

I am inclined to think that the lantern is the best testing apparatus to detect color myopia, and since not all examiners have the Wilson lantern, I offer this substitute. Cut a half inch hole in the cover of a cigar box; illuminate it with a candle or electric light; cover it with a green or red glass and have the subject view the light through an inverted field or opera glass. The light will then similate a lantern at

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off. This is what may be called the office field test. In railroading those with feeble color sense are considered color blind. We apply the term color myopia only to those who can pass the Holmgren test and can tell nearby lights but not distant lights. From this the following question is suggested: What proportion of men are color myopic? This I cannot answer at this time. All I can say is, it is very small, perhaps three or four to the thousand. It would seem, if so few are defective in this regard, color myopia might be ignored. Not so. Like the typhoid fly, one may do great harm.

Example: A railroad employee was sent to me for examination for his colors. Evidently he had made some mistakes in the signals. He was 30 years old, healthy and a good man. His vision was 20/20. He said that he had been examined by several men and pronounced perfect so far as his sight and colors were concerned. The cocky way he matched the Holmgren wools and the rapidity he made his selections made me feel sure he had been practicing for my ordeal. He passed the Holmgren satisfactorily and without hesitation. With the large Wilson lantern light he saw the red and green; with the intermediate light he hesitated but got through; with the small light in a dark room, a light I could easily tell, he fell down and admitted he could not tell the green from the red. A perfect example of color myopia.

REPORT OF THE STANDING COMMITTEE ON RADIUM

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THIS committee was asked by the president, Dr. Plank, to submit a resume of the year's advances in the science of radium therapy.

Before dealing with the technical and educational portion of this summary it will be necessary to discuss briefly certain other miscellaneous matters of importance to the radium therapist and to those interested in this subject.

Drop in Price

The drop in price from $100 to $70 per milligram was made necessary by the exploitation of a rich body of ore from the Belgian Congo by a Belgian syndicate who now controls the radium market of the world. This company was in a position to swamp the American market with their radium and it was necessary for American companies therefore to liquidate their stocks as rapidly as possible.

There has already occurred a reaction from the remarkably low price of $70, and quotations are now being made by reputable companies at $75 to $77.50 per milligram, depending upon the distribution of the radium element.

Insurance

About one year ago there was announced by London Lloyds an increase from 3 per cent to 5 per cent per annum in the **"all cover"** radium insurance rate. This imposed a heavy burden upon radium owners, and since this date several reputable American companies have offered adequate radium insurance against all losses at premium rates from 1¾ per cent to 2½ per cent per year.

The Technique of Radium Application

We are beginning to feel the effect of the French technique as fostered by Claude Regaud of Paris in that smaller units of radium are being used through longer periods of time to attain the desired dosage in the treatment of epithelial growths. The tendency is definitely towards the use of interstitial radiation by means of needles which may be imbeded directly into the tissue it is desired to radiate rather than by the use of tubes or plaques applied externally. The use of such tubes or plaques promotes ulceration and secondary infection of the areas of intense localized radiation.

The use of bare tubes of emanation to facilitate ease and accuracy of application is attaining more and more adherents. In other words, the present tendency in the use of radium is towards the application of small radiating foci in the zone of active growth of the neoplasm.

Within the past year Proust of Paris, Pinch of the London Radium Institute, Van Heinigen of Amsterdam, Levin of New York City and certain others have described their methods of intraperitoneal applications of radium. All of these methods are attempts to make deep seated growths accessible to localized radiation, all having met with some measure of success even in the purely inoperable conditions.

Terry of San Francisco has again called our attention to his method of imbedding emanation into the thryroid gland substance to control cases of true hyperthryroidism.

The use of internal medication by means of radioactive substances is again being revived with some promise of success with this method in the treatment of arthritis deformans, arterio sclerosis, glycosuria and angio-neurotic oedema.

Educational Publications

Within the last year there has been produced and widely sold the best text book on the subject of radium therapy of which we know.

Read before the Western Electrotherapeutic Association, Kansas City, April 19, 1923.

This is Frank Edward Simpson's volume entitled, "Radium Therapy," which has a great deal to recommend it, not only to those who are doing radium therapy, but to those who see cases in which it is indicated.

In addition to this work there is a small volume entitled, "Medical Uses of Radium," published by the Medical Research Counsel of England.

In the field of journals there has been produced a small monthly publication entitled, "The Radium Therapist," which deals with the physical and therapeutic properties of radium exclusively, and is made up of reprints and abstracts of articles which are of particular interest to the beginner in this subject.

The complete field of radium therapy in all of its branches has been very well covered by responsible publications with the possible exception of the use of radium in malignacies involving the oral mucous membrane.

The most important publications of a general nature, dealing particualrly with the so-called selective action of radium, have been those of Ewing of the Memorial Hospital in New York City, Graves of Boston and Mme. Simone Laborde at the Cancer Hospital, Paris.

The field of genecology has been wonderfully covered by Clark and Keen of Philadelphia, Stacy of the Mayo Clinic, Pinch of the London Radium Institute, Crossen of St. Louis and Graves of Boston.

Of particular interest is the report which has just been issued from the London Radium Institute for 1922, dealing with the use of radium in conditions of the gastro intestinal tract, and showing some very remarkable statistics of recoveries following this method of application.

There occurred at the meeting of the American College of Surgeons an extensive symposium on the treatment of carcinoma of the lips, tongue, cheeks and jaws by Crile of the Cleveland Clinic; New of the Mayo Clinic and Brewer of the Presbyterian, Roosevelt and Memorial Hospitals, New York City.

All of these surgeons advised the use of radium in connection with surgical proceedures for the eradication of carcinoma of the buccal mucous membrane.

In regard to the use of radium in conditions of the eye, ear, nose and throat specialties there have appeared some important articles. Lyons of the Mayo clinic has shown the very great value of radium in the treatment of nasal polyps. Crowe of Baltimore has reported a large series of malignacies of the naso pharynx. Quick and Johnson of the Memorial Hospital, New York City, and Franklin and Cordes of San Francisco have successfully treated large numbers of senile cataracts with radium applications.

Williams of Boston, Simpson and Wells of Washington and Withers of Denver have reported favorably on the use of radium to effect an atrophy of tonsillar tissue eliminating not only the obstructive symptoms, but the constitutional disability resulting from tonsillar infections as well.

Stern of Ann Arbor, Terry of San Francisco and Loucks of Detroit have covered the use of radium in the field of internal medicine in particular regard to the treatment of leukaemia, polycythemia and toxic goitre.

The past year has seen the publication of some remarkable statistics on the use of radium in genito urinary conditions. Bumpus, Braash, Scholl and Bowing, all of the Mayo Clinic, have made important contributions on the treatment of carcinoma of the prostate, bladder, urethra and upon sarcoma of the testicle. The literature in regard to the use of radium in genito urinary conditions has been profuse.

Other important contributions have been made by Young of Baltimore, Berger and Barringer of New York and Green of Boston. There has come from the Crocker Memorial for Cancer Research in New York City a further series of studies by Wood and Prime upon the dose of radiation required to kill malignancies in experimental animals.

There is in the process of publication at present two important forthcoming works upon the use of radium. One of these volumes will be written by Quick of the Memorial Hospital of New York and will deal largely with the technique of radium application. The other is a second edition of Colwell and Russ entitled "Radium X-Ray and the Living Cell," and will deal exhaustively with the bio-physical phenomena of radiation.

No resume of the year's happenings could be replete without mentioning the death of one of the pioneers in this science. We refer to the taking away of that wonderful teacher, physician and friend, Dr. Russell H. Boggs of Pittsburg.

Affections of the Blood

ANEMIA. The causes of anemia are so numerous and varied that each case becomes an individual one and the etiological factor must be sought and found before we can hope for success of any therapeutic measure. As a general proposition the physiological indications may be met with autocondensation for faulty metabolism; diathermy of the femur to increase hemoglobin; local high frequency to correct nervous dysfunction. Body application of actinic rays improves general vitality and is an efficient help-mate in these cases.

REPORT ON RESEARCH

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Louisville, Ky.

YOUR committee on research feel that much has been accomplished during the past year. Both the laity and the physicians have received, and are still receiving, not only much literature bearing on this important subject, but are seeing each day men from the Veterans' Bureau who are living examples of what electro-therapy has done for them. The profession as a whole have a different idea of this work to what they did some months ago. We believe the time is not far distant when the medical school that expects to be modern and abreast of the times will have a competent instructor on this important subject.

Again much has been done to simplify, perfect, and standardize the machines which heretofore had changed design, and in many instances entire construction every few months.

This makes possible more fixed rules for treatment which could yet be improved upon. If all machines were equipped with some standard make of milliameter so that there would not be such a wide difference in currents used, much progress would be made.

Perhaps one of the greatest advancements along the line of electro-therapeutics is obtained from lamps, high-frequency machines, X-rays and the plain wall plate coil for obtaining the galvanic, was the establishment recently of the Research Club with Dr. Pacini as secretary, which alone, insures its success.

This club has for its purpose the reporting to the secretary of actual cases treated by the various modalities. This enables the Biophysicallaboratories to collect data, and supply the physician with known facts relative to certain pathology and what can be done to relieve it.

We are informed by the secretary that these reports will be reported in a journal, or bulletin devoted exclusively to this work.

These reports will help the honest scientific manufacturer to bring out only such machines as are worthy, and will stand the test of time. The club requires no dues, only asking your co-operation by report of cases to the secretary.

With a splendid future near at hand as your committee earnestly believes we beg to submit the above.

Read before the Western Electrotherapeutic Association, Kansas City, April 19, 1923.

Scheele, Leizig, tabulates sixty-two cases of cancer bladder, with thirty-two permanent cures by entire removal of bladder.

THE VALUE OF THE CARDIOGRAPH IN INSURANCE EXAMINATIONS

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IN my experience with the insurance and reinsurance companies all applicants with irregular hearts, no matter of what type, are rejected with the usual diagnosis of myocarditis. Also, only a small percentage of those having a history of arrhythmia, after a great deal of correspondence, are accepted and many of these are accepted at substandard rates. So, since some arrhythmias are considered benign, it behooves us to make a closer study of irregular hearts, and attempt to separate them into insurable and non-insurable groups. Since so far as I am able to ascertain no such classification has been made, I am attempting it and believe if any error is made it is in placing some in the non-insurable group that might possibly belong in the other class. There must be no question as to the diagnosis, otherwise, this classification is valueless.

Origin of Arrhythmias

1. Sinus arrhythmia is caused by an interference with the rythmic impulse at the point of origin in the sino-auricular node.
2. Heart block is due to partial or total arrest of the stimulus passing over the auriculoventricular bundle or node.
3. A premature contraction is due to stimulus build up outside the normal point of origin and when discharged causes a contraction.
4. Paroxysmal tachycardia has the same origin as premature contractions but with the addition of rapid contractions of the whole heart over different periods of time.
5. Auricular flutter is due to a circus movement around the combined mouths of the venae cavae, which results in rapid auricular contractions. Many of the auricular stimuli are not transmitted to the ventricle, so the ventricular rate is much lower than that of the auricle.
6. Auricular fibrillation is due to the individual and not the usual collective contraction of the muscle fibers of the auricle, consequently there is no contraction of this chamber.
7. Pulsus alternans is probably due to the contraction of larger and smaller numbers of muscle fibers in the ventricle at alternate beats, so that stronger and weaker beats alternate.

Cardiopathic Tendencies Before the Insurance Age

In this period the bodily resistance is at its highest, and many toxic and infectious areas are throwing their product into the blood

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*Read before the Medical Society of Missouri Valley, Omaha, Nebr., September 21, 1923.

stream with only slight outward manifestations. If the heart is being continually overloaded with these products over a period of time it will often in the late twenties show the result of this constant absorption of these substances. Of course, a careful examination will uncover these and result in their elimination. Many of these precardiopathic conditions are brought to light by the assistance of cardiographic methods.

Physiologic Irregularities

There are many arrhythmias which are purely physiologic and are in no way related to pathology in the heart or elsewhere, but by the ordinary clinical means of examination they may assume a malignant aspect.

For example, in sino-auricular block the time between systoles may be equivalent to the two preceding systoles (Fig. 2), then, since there is a period of silence during this long diastole, a clinical diagnosis of partial heart block is made. This can be unmistakably diagnosed only by graphic means.

In sinus arrhythmia the rate of the heart is increased during inspiration and decreased during expiration (Fig. 3). This is usual before the period of puberty and is often present after this age.

Vagal irregularity (Fig. 4) is a purely physiologic variation of rate due to vagal stimulation of the sino-auricular node and is often mistaken for a pathologic arrhythmia but the exact condition is clearly shown by the cardiograph.

Prepathologic Arrhythmias

Simple tachycardia, bradycardia, and extra systoles may be placed in the class of prepathologic arrhythmias and every available means should be employed to find the underlying cause and if possible eliminate it.

Simple tachycardia is often due to gastro-intestinal derangements, neurasthenia, toxemias, infections, stimulants or worries.

Neurocirculatory Asthenia may be placed in this class. This is a general condition which may or may not be rectified. Often this type remains subnormal and must necessarily be relegated to a subnormal life.

Bradycardia may be due to tumors of the brain, to infections or may be physiologic.

Extra systoles, according to their origin, are of three types, those arising in the auricle (Fig 5), those in the ventricle (Fig. 6), and those in the auriculo-ventricular node or bundle (Fig. 7). These premature contractions are caused by infections, gastro-intestinal derangements, foods, stimulants, toxemias, anemias, nicotine, digitalis, strophanthin, adrenalin and there are many other factors, some known and some unknown. Disease in the heart itself may be the underlying cause. Extra systoles result from the existence of an irritable focus in some part of the myocardium or junctional tissues. Here stimulus matter is built up and irregularly discharged.

In this arrhythmia the essential thing to remember is that the premature contraction is in itself of no importance as far as the patient's expectancy is concerned. However, to be sure that valvular disease, myocarditis, arteriosclerosis, hypertension or any sign of heart failure do not exist, the patient should be carefully examined. In the absence of any disease and with good cardiac reserve, I have no hesitancy in calling this condition a prepathologic arrhythmia.

Pathologic Irregularities Which May Become Normal

In this class I would place prolonged AsV's (increase of time of conduction from the auricle to the ventricle), dropped beat and partial heart block. If the basic pathology can be discovered and eliminated many of these abnormalities can be restored to normal condition with no liability of recurrence. These irregularities are due to some abnormality in the auriculo-ventricular bundle or in auriculo-ventricular node. If the diseased condition has progressed until there is an actual degeneration of this tissue then no method of treatment will restore it to normal. Often this type of irregularity is brought on by digitalis therapy in benign cardiac arrhythmias.

Pathologic Irregularities Which Are Seldom Restored to Normal

While some may not agree with this classification, from my experience and from those who have seen a much larger number of arrhythmias, I would say that since these irregular hearts are usually caused by pathology in the heart tissue itself, since there is such a great liability to recurrence and since even though regular rythm may be restored, too much damage has been done to expect the complete elimination of the organic trouble and restoration to normal. In this class I would place paroxysmal tachycardia, complete heart block, auricular flutter (Fig. 8), auricular fibrillation and pulsus alternans (Fig. 9). While the placing of paroxysmal tachycardia in this class is questionable, the rapidity at which the heart may beat, the often long periods of time which it may continue and the liability of recurrence has convinced me that this is the proper place for it.

Making of Cardio-neuropaths

All physicians see patients who have been rejected by insurance companies on account of benign cardiac irregularities and if their experience is like mine, I am sure they will agree this type of patient is very hard to deal with. He can be assured that his heart is normal and that his alloted time will not be reduced but no matter how careful and conscientious the

Fig. 1

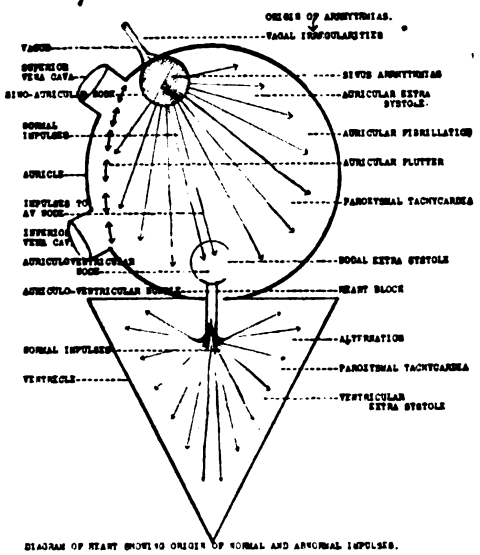


DIAGRAM OF HEART SHOWING ORIGIN OF NORMAL AND ABNORMAL IMPULSES.

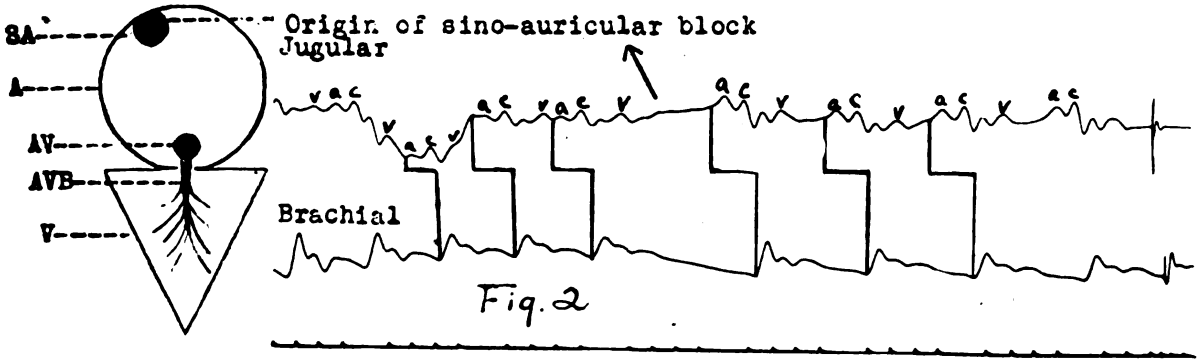


Fig. 2

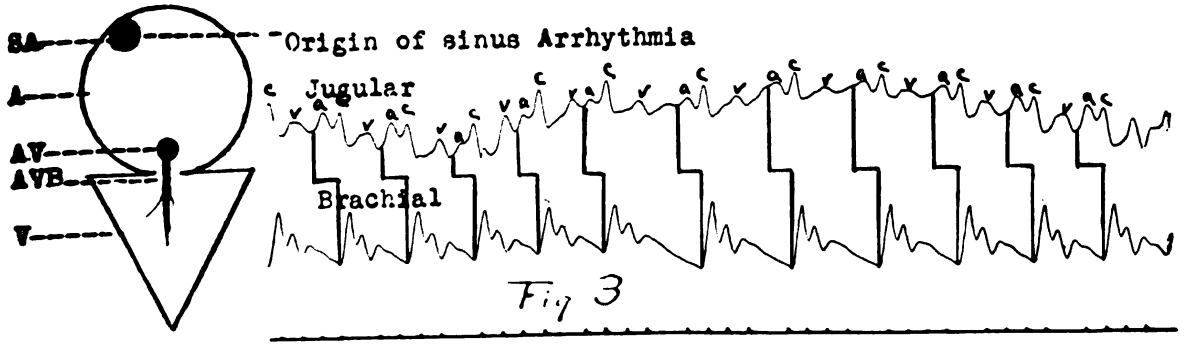


Fig 3

examination and explanation, he will always counter, "Well, if I am all right as you say, then why can I not get insurance?" It always seems the person who has been rejected is the one who values insurance the most highly.

Irregularities Which Should Be Insurable

The applicant being otherwise normal, and the exact diagnosis being made by means of a cardiograph in the hands of a competent examiner, I would not hesitate to accept those with the following types; sinus arrhythmia, vagal irregularities, sino-auricular block, bradycardia and premature contraction of auricular, nodal of ventricular origin.

Irregularities Which May Become Insurable

The applicant being otherwise normal or capable of being restored to normal by elimination of pathological foci and the heart being restored to normal rythm over a period of time (at present I am not prepared to say how long) I believe we may place in this class persons with the following arrhythmias; simple tachycardia, prolonged AsVs, dropped beat and partial heart block. There may be some question as to partial heart block but if this is due to some removable pathology as edema, temporary pressure from surrounding heart tissue or an absorbable clot in the conducting bundle, then, I believe it can be safely placed in this class.

Irregularities Which Should Never Be Insurable

In this class I would place paroxysmal tachycardia, complete heart block, auricular flutter, auricular fibrillation and pulsus alternans. Even a suspicious history of the presence of these arrhythmias should unconditionally reject the applicant. While I am perfectly cognizant of the fact that normal rythm may be restored in many of these patients and that some of these patients live their full expectancy, the death rate is too high to even consider them for substandard insurance.

Value of the Cardiograph in These Examinations

In the hands of a competent examiner the foregoing conditions can be accurately differentiated.

While many of these arrhythmias can be differentiated clinically by a few clinicians whose knowledge of them has been acquired by the use of the cardiograph, however, in the hands of most clinicians the largest majority of cardiac irregularities can be accurately diagnosed only by graphic means.

The accurate diagnosis of the irregularity in conjunction with a careful examination by a competent examiner would add many first class risks to the insurance lists, thus allowing many rejected applicants to have the protection of insurance at standard rates.

Accurate graphic methods would have prevented the insurance companies from accepting many of the subnormal cardiac risks which are now insured at standard rates.

It makes a written record which can be transmitted to the medical director and he can arrive at a logical conclusion instead of the haphazard guess which is at present necessary.

Cases

1. Bradycardia, 48 per minute (Fig. 10).

The applicant, who with the exception of slow heart rate, is well developed and is normal in every particular. The question, "Is he suffering from partial or complete heart block?" is answered in the negative by the cardiograph. There are no signs of heart failure nor brain tumor. I believed him to be a first class risk and accepted him. The cardiogram was sent to the reinsurance company. After careful examination of it by the medical director, he agreed with me and accepted the applicant as a normal risk. A policy at a standard rate was issued.

11. Extrasystole of ventricular origin (Fig. 7).

This applicant was normal with the exception of the extrasystole. The medical director of the reinsurance company would not accept him at any rate. I believe him to be a first class risk and since discontinuing the drinking of coffee the extrasystole has disappeared and another company has accepted him at standard rates.

III. Heart block. 2:1 rythm (Fig. 11).

This patient came to me complaining of stomach trouble and felt sure that "he always had had a good heart." He had a perfectly regular pulse and was accepted by an insurance company at standard rates about four months prior to this examination. The cardiograph revealed a heart block with the rate of the auricle twice that of the ventricle. This patient is a poor insurance risk and in my opinion should have been unconditionally rejected.

Remarks

In the first case the applicant was shown by graphic means to have a normal cardiac conducting apparatus and was accepted, when ordinarily he would have been rejected with a diagnosis of heart trouble.

In the second case the applicant was rejected because the medical director of the reinsurance company believes an extrasystole is heart disease.

In the third case the applicant with a heart block should have been rejected, but since no cardiograph was available he was accepted and will in all probabilities be a financial loss to the insurance company.

Conclusions

In my opinion, if graphic methods were used

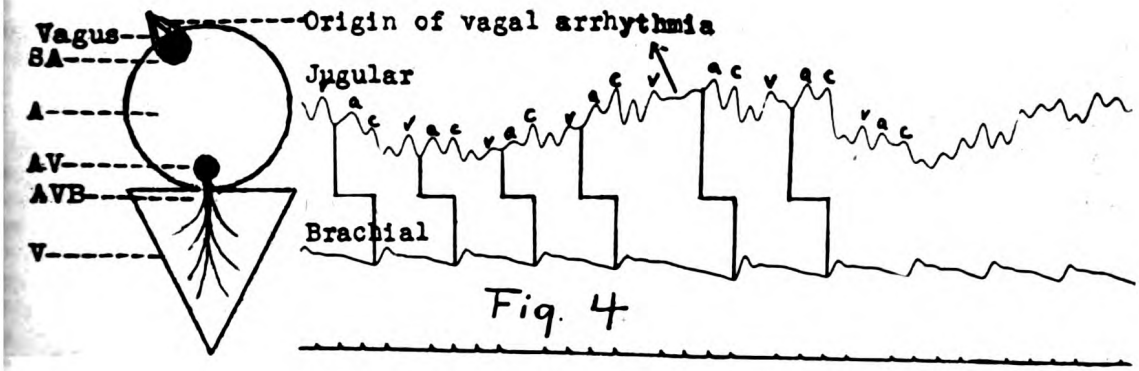


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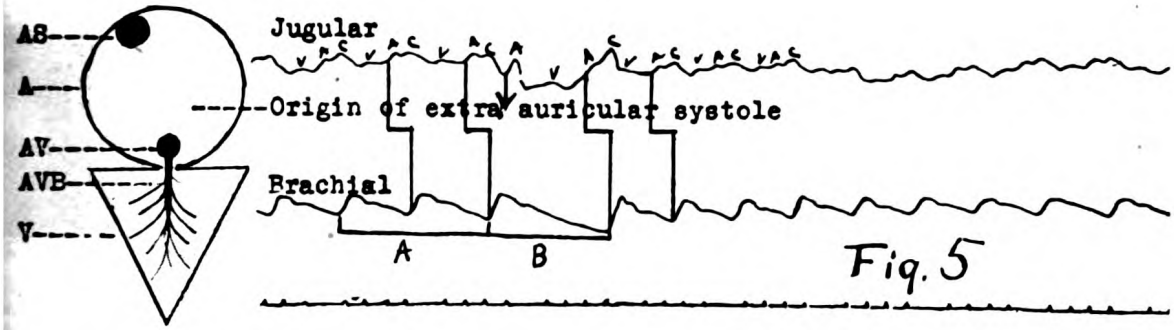


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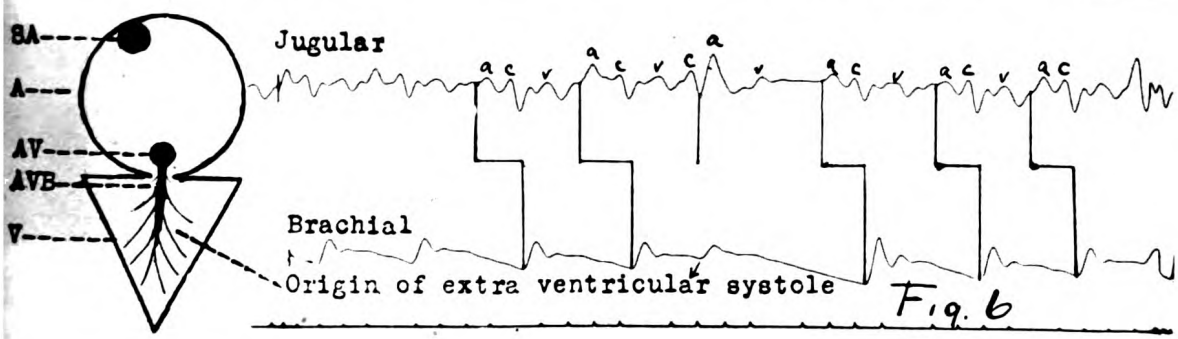


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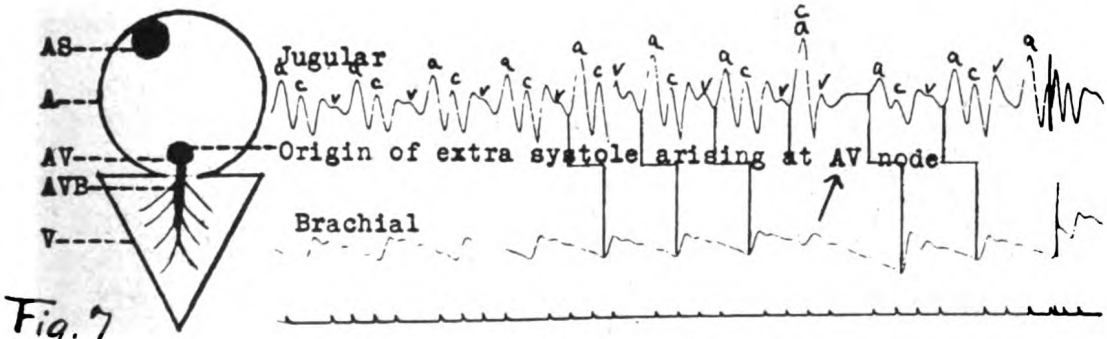


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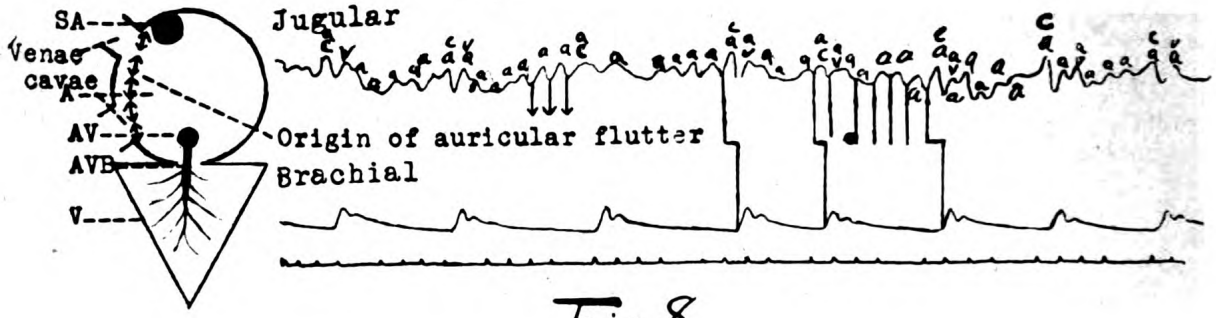


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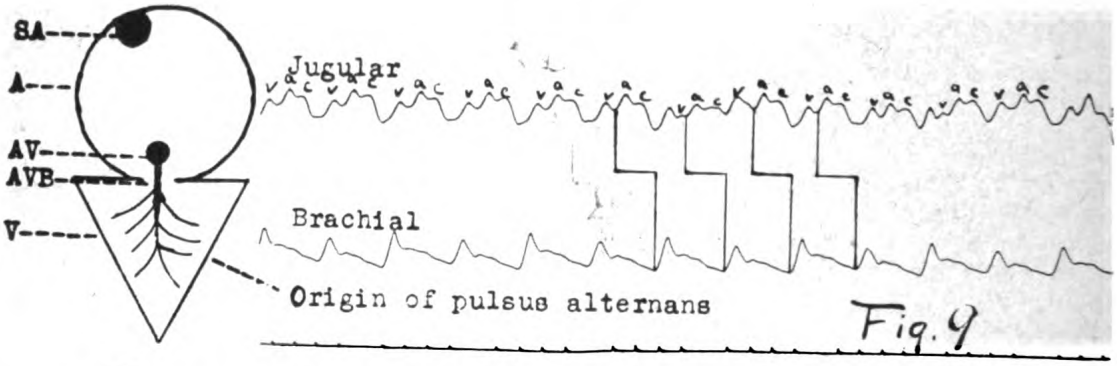


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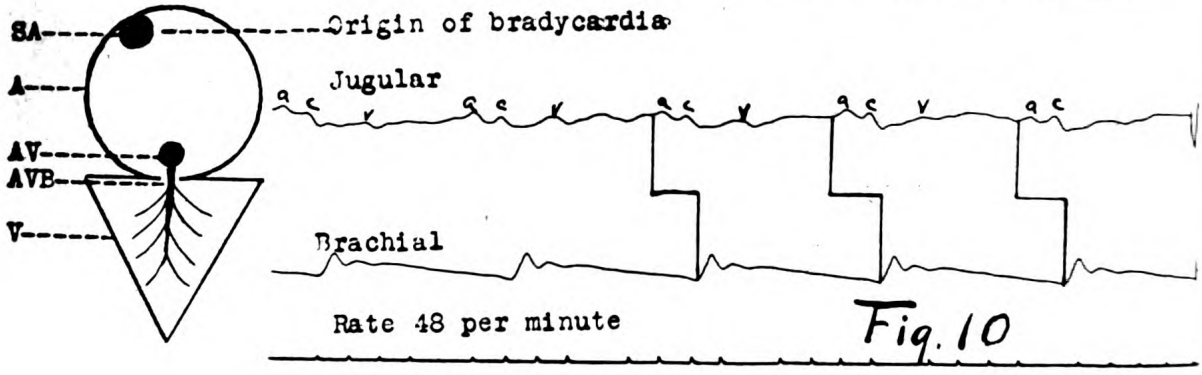


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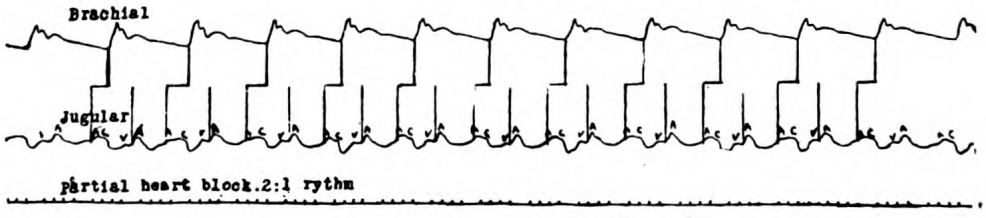


Fig 11

insurance examinations, many accepted ardiographic risks would be rejected and any risks with physiologic arrhythmias ould be accepted.

Under the present conditions when an ir-gular heart is reported, the medical director be on the safe side must reject the applicant accept him at greatly increased rates, but a graphic record accompanied the examina-on he could arrive at a logical conclusion and cide the case upon its merits.

Since the insurance companies are in busi-ess for financial gain I believe a cardio-raphic examination of each applicant with a rdiac irregularity would be a means toward at end.

Legends

Figure 1. Diagram of heart showing ource of normal and abnormal impulses.

Figure 2. Sino-auricular block. Physio-gic.

Figure 3. Sinus arrhythmia. Rate changes ith respiration. Physiologic.

Figure 4. Vagal arrhythmia. Physiologic.

Figure 5. Extra auricular systole. Pre-athologic.

Figure 6. Extra ventricular systole. Pre-athologic.

Figure 7. Nodal extra systole. Ventricle nd auricle contract at the same time. Pre-athologic.

Figure 8. Auricular flutter. Contraction wave passes around combined mouths of venae cavae. Rate of auricle 240. Rate of ventricle 68. Pathologic.

Figure 9. Pulsus alternans. Heart muscle in serious condition. Pathologic.

Figure 10. Bradycardia. Physiologic.

Figure 11. Partial heart block. 2:1 rythm. Auricle contracting at rate twice that of ventricle. Pathologic.

RADIOTHERAPY TECHNIQUE

J. D. GIBSON, M. D.,
Denver, Colo.

THE subject of radiotherapy is getting to be of great importance and attracting the attention of the medical world as never before, and in the healing art has become a daily necessity. Ten to twenty years ago the literature on the subject of radiotherapy was very meagre and at that confusing. It was directed almost entirely to malignancy while today there are many journals devoting much time to chronicling its march of progress.

Technique of radiotherapy is the art of coordinating the four great factors in the production of X-rays in a manner to procure the quality and quantity of ray desired in a given case. This art has been perfected and brought nearer to a real science today than ever before. New instruments of diagnostic precision, known as the iontoquantimeter and ionizing chamber, while quite complex in their use, have been of great value in stabilizing all means of measuring the dosage of X-ray. In fact, the great improvement in measurements of dosage and technique generally make the use of the great 200 and 300 KV machine impossible. By the use of the ionizing chamber there can be mapped out and calibrated data for ordinary use in producing an exact dosage through specified filters of 1mm. and 1½ mm. cu. and also from 5 to 10 mm. of alu. for exact distances almost through the whole body. Erythema dosage in quantity can be delivered for several inches into bodily tissues with great precision. While the use of these ionizing chambers are an imperative necessity for exact dosage of the larger machines, they have otherwise helped to conform and stabilize the more common measurements of spark gap and current, etc., which have been in general use for some time and are yet the practical means of measurements for the great majority of our therapeutic work at the present time.

The four supreme factors of importance are:
Spark gap—KV.
Distance.
Milliamperage (current).
Time.

It is possible that if three of these factors are known the fourth can be readily determined. The dosage problem is illustrated thus:

$$\frac{\text{Ma} \times \text{KV}^2 \text{ or spark gap} \times \text{time}}{\text{Distance}^2}$$

This will give you the dosage employed in ma. minutes as

$$\frac{5 \text{ ma} \times 8^2 \times 6 \text{ min. equals 30 mp. m}}{8^2}$$

If you wish to give, say 45 m. dosage it could be worked out as follows:

$$\frac{6 \times 9^2 \times 6 \text{ equals 45 mp. min.}}{8^2}$$

This gives us a full erythema dose.

Remember:
A decrease in current increases time 10/3.
Increased distance increases time 9/4.
Decrease gap increases time 3/2.

Filters may range from 1mm. alu. to 1 mm. cu. In current of 100 KV or less aluminum filters are ordinarily used and in deep work and heavy voltage 5 to 10 mm. may be employed. In general superficial use, while not exceeding 5 to 6 ma. of current, 3 to 4 mm. alu. are sufficient and in light superficial work fre-

Read before the Western Electrotherapeutic Association, Kansas City, April 19, 1923.

quently no filter is required, but where the current is light but voltage high and a long time treatment is to be given, a filter is needed. Erythema dose, skin tolerance, is 45 mp. min.

Equals—

Intensive dose—filter
1¼ H
4 Hamp
10 x

Semi-intensive dose
or inhibition dose
2 to 4 alu. filter
½ H to 1 H
3½ Hamp
4 x to 8 x

Fractional or
stimulating dose
Light filter
⅛ H to ½ H
1 x to 4 x
1/10 Hamp to 2 Hamp

Nearly all skin conditions respond better to short wave lengths and as a rule spark gaps 5 to 6 inches should be used and when filter is employed use 8 to 9-inch spark gap. Frequently dose ⅛ H to ½ H may be given once or twice weekly. Semi-intensive dose, ½ H to 1 H may be given bi-weekly. If filter is to be used the quantity may be increased from 1 H to 2 H. Intensive dosage, 1 H to 2 H without filters, and when filters are used the dose may be increased to 2 and 3 H monthly—not oftener with safety.

Effects of radiation, for convenience, are ordinarily divided into three groups, namely, stimulation, inhibition and destructive.

Stimulation

The vast majority of human ills are from lack of co-ordination of cell and nerve magnetic impulses producing real pathological conditions, as well as many hypo- or hyper-functional conditions. The blood supply either primarily or secondarily may be at fault, active or passive, traumatic or microbic congestive disturbance, or there may be primary, secondary or septic anemic or lack of normal blood supply and nutrition for the various organs and tissues of the body. Most of these can be benefited through this stimulating effect of radiation. Do not understand me to claim a "cure all" for X-ray, but with the variation in dosage already hinted at, many diseases can be reached by its wonderful stimulating power inhibition and over stimulation, sedation, anemia and death even of parts are of the whole. While many diseased conditions can be cured by X-ray there are many of them that can be cured more quickly and economically by other means than by X-ray.

I wish to impress upon you the fact that X-ray is going to force the closer study of etiology and pathology of all diseases by physicians generally. I predict a greater interest in an exact pathology in the future than ever before. An exact and remedial agent is always a stepping stone to new attainments so I predict a definite and progressive development along this line as it is a necessity and will be brought about in the same way as definite measurements of X-ray dosage have caused the development of the 200 and 300 KV X-ray machines, etc. There was a necessity for them and a necessity was met. The great beauty of radiotherapy is you can apply it where you need it. It does its work in the infinitesimal tissue cells, it can stimulate cell proliferation, division and increase its vigor, vitality and tone, producing a magnetic equilibrium in the unbalanced cells, thus restoring to it its special electric pull by which the diseased cell is enabled again to draw its needed nourishment from the blood stream around it and thus regain its normal nourishment and vigor. Arndt and Schulz law declares the power that stimulates to destruction can stimulate to health. It has been demonstrated for years that X-ray can and did overstimulate to destruction the cancerous cells in malignant conditions. I wrote and preached for ten or more years on the X-ray stimulation of cells to health and vigor before I heard the faintest echo of reciprocal sounds, but I am delighted to see that every journal one picks up is getting filled with the idea of radio stimulation.

Schmidt has been able to demonstrate the stimulating effect of radiation on living cells in a most beautiful manner. He was able to demonstrate that normal cells under the effect of stimulating doses took on vital stains very rapidly and in an increasing quantity while those submitted to a heavier dosage the amount of stain was inhibited and was more disseminated in the cell and the cells that had received destructive doses of X-ray did not take on any stain whatever.

Stephan of Germany has successfully stimulated the liver and pancreas in diabetis, the kidney in acute parenchymatous nephitis and the stomach in achilia gastrica.

Much work is being done and the literature by many authors is exceedingly abundant in regard to the use of X-ray stimulation of hypofunctioning organs, as ovaries for dysmanorrhea, periosteum for ununited fractures, stimulating doses to liver, pancreas and supra adrenals. Much is being accomplished in applications to the hypophisis as an aid to the production of endocrine harmones. The endocrines

are attracting much attention in this line of work at the present time. Some authors claim that through the harmones and changes produced in the endocrine glands many diseases can be reached and relieved more quickly than by direct treatment of the offending organ.

Fritz Hilpert of the Erlangen Clinic sounds a note of declaration that X-ray will cure tuberculosis in the lungs or anywhere else in the body and his tubercular dose is from 10 to 25 per cent HED. Frankel advocates a dosage of 60 per cent HED in peritonitis and in tabies messenterica. He claims two things are required, first, stimulation of the activities of the local cells; second, elevation of the general phagocytic powers of the body, both of which can be accomplished by means of X-ray. This mode of treatment many think should be classed along with vaccines, milk, split protein products, etc., called by the Germans "plasmaactivation" and by the French "hemoclassic crisis" effects.

Many of you will see that my whole work and claims in the treatment of tuberculosis by the stimulating and invigorating effects of X-ray upon normal and pathological tissue cells are being abundantly sustained. The author's formula of treatment is as follows:

For thin individuals $\frac{2 \times 8^2 \times 10}{12^2}$ equals ¼ H to $\frac{3 \times 8^2 \times 10}{12^2}$ equals 1/3 H. For heavier patients one of these doses is given three times weekly alternating treatments back and front of chest and are given through to mm. or alu. followed on alternate days with a one pole static stress application.

Eczema requires fractional dose ordinarily and the doses can be repeated once or twice weekly until effect is noted.

Inhibition

In this class of cases we will place those cases requiring amounts of ray ranging from ½ H to the full H or near the full erythema dose. It is to take the place between definite stimulation and complete destructive effects. Many eczemas, lupus, superficial exudates and carbuncles, etc., will come in this class. Instead of my trying to mention all conditions applicable under this heading, I will mention only a few. Alopecia, ring worm and fadus will usually come under this heading with the dose ranging around 1 H or

$$\frac{3 \times 9^2 \times 9}{8^2} \text{ equals } 35 \text{ mp.}$$

and this dosage can be repeated in two to three weeks if needed and the formula can be changed to suit individual machines to the best advantage. Goiter will be classed under this same heading and treated with the same dosage bi-weekly but occasional cases of goiter will be found that will do well with the fractional doses. With goiter you will make some failures and then again some brilliant results.

Intensive Dosage

This is usually to be given with filters ranging from 4 to 10 alu. to 1 mm. cu. Kroenig places the erythema dose or skin tolerance measured by the ionizing chamber at 170 E and all the massive depth doses are calculated from this surface dosage.

Kroenig's comparison of his dosage with H is as follows:

Kroenig's 75 E equals, with alu, filter 3 to 10 mm, 1.5 H.

Kroenig's 150 E equals, with 1 mm. cu. filter, 2.5 H.

As it is more practical I will still use the H as our unit for calculating the massive doses. The author reported a case of uterine fibroid of immense size treated with benefit by means of X-rays in 1902 before the American Electrotherapeutic Association and from this little beginning has been developed one of the most popular methods of treating these conditions. These tumors usually require a rather heavy dose. Kroenig's ovary and fibroid dose is put down as 33 E and the formula is $\frac{33 \text{ E equals}}{170}$ 1/5 H. and with this dosage he rarely fails to produce successful results as regards to tumor and symptoms.

Carcinoma and other malignant conditions have received more attention at the hands of the radiotherapist than any other pathological condition and the whole world is watching and is anxiously in hope that a definite and positive cure for this dreaded malady will be developed by means of this agent.

Kroenig has worked out a dose known as a carcinoma dose and when applied correctly causes the disappearance of the disease very rapidly as far as sight and touch are concerned, and with much certainty this dose is stated at 150 E and the equation is $\frac{150 \text{ E equals}}{170}$ 8.5%. There is no doubt this is the correct amount of energy to use in these cases and if you cannot give this dosage at one sitting it should be delivered with largest KV possible and in as short a time as safety will permit with the largest machines at your disposal.

Try local applications of oil of wintergreen to the painful areas of erythema multiforme.

In children priapism or pulling at the foreskin is suggestive, at least, of stone in the bladder.

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

APPLIED THERAPEUTICS

(Continued from September number)

DR. ALFRED STENGEL says: "In one important direction the treatment of disease has been enhanced by the introduction of methods derived from sources outside of the domain of medical sources."

To the physicist primarily is due the credit for the application of physical methods in medicine.

For convenience of description the conditions amenable to high frequency currents have been classified under the following heads: Affections of the Skin; of the Glands; of the Blood; of the Nerves; of the Blood vessels; of the Bronchi and Lungs; of the Muscles and Joints and Diseases peculiar to women. You will at once observe that this classification fails to include many more which are amenable to high frequency currents for a description of which reference is hereby made to the literature upon the subject.

As has been previously stated disease may be viewed from many points; this is also true from a therapeutical standpoint. While there are many methods in technic of application which may be as good or even better than those about to be described, the picture presented to your view will be one which I have found to be satisfactory in my work.

Diseases of the Skin

The principal diseases of the skin which we are called upon to treat are, acne, alopecia, acne rosacea and eczema. Bearing in mind the physiological action of high frequency currents on the skin is bactericidal and produces according to the method employed, all degrees of stimulation from mild hyperemia to total destruction, their employment in these conditions seems to have a scientific basis.

ACNE. There are many forms of acne, a description of which is unnecessary because, with the exception of acne rosacea, they all seem to be of a bacterial nature which is the chief cause of capillary stasis. The first indication is to open the mouths of the sebaceous gland ducts by a thorough cleansing with green soap, alcohol and water after which the stimulating effects of the monopolar high frequency current will overcome the vascular stasis so necessary to do in these cases. The strength of current varies with the degree of hyperemia indicated in each individual case.

ACNE ROSACEA. Acne Rosacea is a misnomer as it is characterized by vascular dilatation and as one of the effects of high frequency is to increase the dilatation it seems illogical to employ it in the manner just described. The indication to be met is the destruction of the small blood vessels which may be accomplished by desiccation in accordance with the technic of Dr. Clark, which obliterates the dilated vessels and restores the skin to approximately its normal color.

ALOPECIA is a term applied to baldness and may vary in degree from slight thinning to complete loss of hair. There are three varieties: congenital, senile and premature. As the congenital and senile forms are not amenable to high frequency currents, we will pass on to the premature form, the causes of which are constitutional and local infection. The constitutional causes require constitutional treatment. The local cause is always one of infection and the first indication is to kill the germ. This is most effectually accomplished by the roentgen ray in a dose just sufficient to act as a germicide. The rays not only kill the bacillus or other germ, but act as a stimulant to the hair follicles if there be any to stimulate.

Alopecia Areata usually yields to high frequency sparks from a vacuum or non-vacuum electrode, but must be of a strength sufficient to produce a very active hyperemia.

ECZEMA. Nearly all forms of eczema are characterized by hyperemia. This being true high frequency currents are only indicated in the chronic indurated variety where it is possible to change the passive into an active hyperemia.

Affections of Glands

ADENITIS. The high frequency current in the form of diathermy may be used with benefit in glandular infections before suppuration has taken place. After suppuration has taken place the gland may be drained surgically when monopolar application of high frequency will stimulate renewed activity and assist in the closing of the abscess.

GOITER. I know of no condition that requires quite as much skill as to be able to know when beneficial results are to be expected from the use of high frequency, as in goiter. My advice is to keep away from most goiters with these currents. However, some cases of adolescent goiter are greatly benefited by diathermy.

PROSTATE. The primary effects of the high frequency current upon glandular tissue is one of stimulation and the prostate while not so rich in glandular tissue as some other bodies, it is not an exception to the rule. It is a gland that is not **per se** essential to life. but it may be said parenthetically that life is not worth much without it.

We cannot go into details of its anomalies and dystrophias, and must continue our discussion to the management of its perverted conditions which are amenable to high frequency currents. Diseases of the prostate require a keen diagnostic perception and a skillful selection of modalities on the part of the physician. Here as well as in many other instances, team work in physical measures is essential. In passing it may be well to leave this thought with you. THERE IS NOT A THERAPEUTIC MEASURE KNOWN TRAT WILL SO EFFECTUALLY CLEAR THE SEMINAL VESICLES AND PROSTATIC DUCTS OF INFECTION AS THE STATIC WAVE CURRENT.

Without going into the etiological factors of prostatitis, it may be affirmed that high frequency currents are indicated in practically all forms of ACUTE inflammation of this organ.

The contraindications to the use of high frequency currents in prostatic conditions are: cystic degeneration, calculus, malignant growths and closed abscess.

While tuberculosis of the prostate is a contraindication to the use of nearly all electric modalities, the application of diathermy is frequently followed by favorable results. Tuberculosis of the prostate without involvement of the bladder and intestinal glands is very rare.

The first side-step from normalancy in all prostatic affections is congestion. Second, infiltration and vascular stasis. Third, degeneration. The first condition, congestion, is readily dissipated by heat from any source. The second condition, infiltration of soft products of inflammation accompanied with vascular stasis may be relieved by the penetrating heat effects of diathermy. This is accomplished through dilatation of the blood vessels within and leading from the infiltrated area. When these vessels become dilated freshly oxygenated blood rushes in to fill the space, thus converting a passive into an active hyperemia through which drainage is established and inflammatory products carried away through the circulation and glandular tracts. The third indication, degeneration and formation of abnormal tissue is but little effected by high frequency currents. Theoretically these currents should be of service in this condition but practically, they are not. Another instance where the "Facts" are not "True."

The most common form of prostatitis is one due to gonorrheal infection, the nimble coccus finds its way from the deep urethra into the ducts and follicles, and mother nature in her effort to thwart the invader, constructs a barrier of exudates and rushes her army of leucocytes to the field to destroy the foe, the result is many fallen leucocytes which we term pus cells; the undertaker for these fallen heroes carries them down the natural channel to the morgue or fossa navicularis from which they are buried in meshes of cotton or washed away by the urinary current. In such cases the undertaker is very busy, overworked and unable to cope with the situation. While it is quite possible for him to finally clear the field the host is entitled to our assistance, which is best rendered by placing a well fitted block tin electrode, 4x6 inches in size on the abdomen immediately above the pubes, the other or active electrode may be metal, vacuum or non vacuum, the latter is to be preferred. In any case it should be of proper shape to fit the prostate and be well insulated in all part except where it comes in contact with the gland. These electrodes are connected to the terminals of a d'Arsonval apparatus. The current should be turned on gradually, reaching the point of comfortable tolerance in one minute and be maintained for six minutes, then gradually returned to zero. While a longer period of time would be advantageous, it is hardly safe to continue the treatment longer than seven minutes because of the probability of burning the rectal mucosa. However, some operators take the chance of a burn and prolong the application even to 20 to 30 minutes.

The effects of diathermy may be prolonged by the simultaneous application of radiant light over the lower lumbar region and continued for one hour afterward. The effects of treatment will be enhanced by the application of radiant light to the perineum by the patient at his home, for two daily periods of one hour each.

Common sense hygienic and medicinal measures should accompany the treatment by diathermy. This treatment is usually sufficient to restore normal function. However in the majority of instances we do not see the patient until the disease has become chronic. While these measures may still be indicated, a great deal more good may be accomplished in this stage of the disease by judicious employment of the static wave current.

Very little can be expected from high frequency currents in prostatic hypertrophy, but a modicum of benefit may be expected from their use in prostatic atrophy.

While a dormant prostate may be stimulated to normal activity we should not be too enthusiastic over the prospect of renewing youthful vigor to an aged prostate.

(To Be Continued)

OUR GUESTS



r. Lewellys F. Barker

Dr. Lewellys F. Barker, Baltimore, now Professor of Clinical Medicine at Johns Hopkins University, and visiting physician to Johns Hopkins Hospital. Author of The Nervous System and its Constituent Neurones. Translator of Werner Spalteholz's Hand Atlas of Human Anatomy; Laboratory Manual of Human Anatomy, Clinical Diagnosis of Internal Diseases and various medical articles.



Dr. Peter Bassoe

Dr. Peter Bassoe, Attending Neurologist, Presbyterian, Grant and Evanston Hospitals; and Neurologist to the Home for Destitute Crippled Children, Home. Chicago, Ill. Editor of Year Book on Nervous and Mental Diseases.

College of Physicians and Surgeons, Chicago, 1897. Now Professor of Medicine (Nervous and Mental Diseases) Rush Medical College, Chicago. Member: American Neurological Association.



Dr. Joseph C. Beck

Dr. Joseph C. Beck, Post-graduate work at Universities of Prague and Vienna. Author of Atlas Roentgenography of the Head, Plastic Operations about the Face, Applied Pathology of Ear, Nose and Throat Diseases. Collaborator in Loeb's Operative Surgery of the Nose, Throat and Ear, Ochsner's Surgical Diagnosis and Treatment, and Emil G. Beck's Bismuth Paste in Chronic Suppurations.



Dr. E. V. L. Brown

Dr. E. V. L. Brown, Chicago, Ill. Professor of Opthalmology, University of Illinois, College of Medicine. Also connected with University of Chicago, Rush Medical College, Cook Counti, Ill., and Presbyterian hospitals. Best known for his original research work in etiology of Iritis. Has done considerable work along original lines on diseases of the eye.



Russell D. Carman

Dr. Russel D. Carman, Roentgenologist. President of the Radiological Society of North America. International authority on Gastro-Intestinal Roentgenology. Member editorial board, American Journal of Roentgenology and Radium Therapy." Member editorial staff "Journal of Radiology." Professor of Roentgenology, University of Minnesota.

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Dr. F. M. Pottenger

OUR GUESTS

Dr. John H. Cunningham, Boston, genito-urinary surgeon; President of the American Urological Association in 1920-21. The author of a text book upon Genito-Urinary Diseases; surgeon to the Boston City Hospital and Long Island Hospital, and consulting surgeon to the Frost Hospital, Chelsea; Melrose Hospital, Brockton, Mass.; Jordan Hospital, Plymouth, Mass.



Dr. J. H. Cunningham

Dr. John B. Deaver, Philadelphia. Now John Ray Barton professor of Surgery, University of Pennsylvania. Author of Surgical Anatomy; Kidney Pathology and Treatment; Surgery of the Upper Abdomen; Enlargement of the Prostate; and Diseases of the Breast.

Surgeon in chief to Lankenau Hospital. Author of "Appendicitis, its History, Pathology and Treatment."



Dr. John B. Deaver

Dr. Joel E. Goldthwait, Boston, one of the most famous orthopedic surgeons in the world. Ex-President of the American Orthopedic Association. Has published numerous monographs, and is a frequent contributor upon Orthopedic Surgery. Was colonel in medical corps and chief consultant in Orthopedic Surgery in A. E. F.

Now instructor in orthopedic surgery in Harvard Medical School and at Massachusetts General Hospital.



Dr. J. E. Goldthwait

Dr. Reuben Peterson, Ann Arbor, Mich., Professor of Obstetrics and Diseases of Women at the University of Michigan. President of the American Gynecological Society in 1911. Author of Peterson's Obstetrics. Frequent contributor on medical topics. Has attracted unusual attention by his original efforts in the radiographic demonstration of the pelvic organs with the assistance of the X-ray.



Dr. Reuben Peterson

Dr. J. Frank Schamberg, Philadelphia. Professor of Dermatology and Syphilogy in the Graduate School of Medicine, University of Pennsylvania. Author of a text book on diseases of the skin. In collaboration with Raiziss and Kolmer, Dr. Schamberg introduced the manufacturer of Arsphenamine in this country during the World War.



Dr. J. F. Schamberg

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald

and Electro-Therapist

Incorporating the

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The Editors' Forum

ABRAMS

WE BELIEVE in giving the devil his due. We believe in praise where praise and credit are due. We believe f Abrams has discovered something, criti- sm will not destroy it. If it has merit it ill stand. That the light of truth turned on ill the sooner make its worth universal or he sooner protect the unwary. Medicine is urdened with too many make-believes. O, hat we have suffered at the hands of con- mption cures foisted on the profession in he "hope" that there was merit in them akes one sick at heart to contemplate!

It is today pitiful to talk with men with he title of M. D. who think Abrams is be- g persecuted and maligned and who believe Abrams and his system unequivocally, and ho think if you do not accept his system id believe in his method you must have long rs or a cloven hoof. Whereas, the system ust stand the light of the investigator.

In the Dearborn Independent for May 19, 23, there is an article, "Abrams' Machine a rap for the Unwary," by Robert Morgan, lative to the **scientific electrical mechanism id construction** of Abrams' machines, from hich the following is reproduced:

"Their interiors (four of the Abrams ma- ines sent direct) were examined and tested electrical engineers of the highest stand- g."

Abrams says he has discovered a new form energy. "Complicated Equipment for Producing New Force Fails to Register on the X-Ray."

"It should be understood that no energy of any kind, electrical, mechanical or chemical, is applied to this diagnostic machine. It obtains its results, according to Abrams, from the vibrations inherent in the drop of blood placed in the dynamizer."

"The two 'reflexophones' by which Abrams claims to measure this new energy he has discovered, and to measure it in minute fractions of an ohm, are merely rheostats. . . . They are so crudely made that they cannot even measure accurately entire ohms, far from being capable of measuring fractions of an ohm. . . . Construction was so poor that it was necessary to make, in many instances, as many as ten tests before the actual ohmic resistance of each point could be established. That is to say, these 'reflexophones' are merely crude rheostats, capable of measuring small amounts of ohmic resistance, but inaccurate in every one of their measurements. They would be thrown out of any high school laboratory and one of the pupils put to work building a more accurate instrument. Better rheostats than these can be bought for $1.00 each in any store selling electrical toys. They mean nothing, do nothing, measure nothing accurately, either medically, electrically or mechanically.

"It should be remembered also that a resistance of 61 ohms, electrically speaking, would measure almost nothing in the way of vibration, certainly it could not hope to measure a vibration 50,000 times as fast as radioactivity.

"The writer will undertake to duplicate the entire ($150) machine for a maximum cost of $20, and to duplicate them in quantity for less than this."

These figures are of tremendous importance when it is remembered that Abrams claims to be able, with these crude rheostats, masquerading as "amplifier" and "reflexophones," not only to measure vibrations at a rate exceeding one hundred billion per second, but also to differentiate vibratory rates either above or below this heretofore unmeasurable rate. Even if all the other contentions made by this astounding "healer" were correct—were it true that he has discovered a new force, were it a fact that he has measured the vibrations of the electrons in a drop of blood, were it proved that his "amplifier" operates as he claims it does—were all these claims supported and proved, yet, with the equipment provided in these "reflexophones," he could not even measure the resistance of the current necessary to light an ordinary lamp, nor the vibrations of a high-pitched

ning fork· beyond this, were he able to easure them, even in a crude way, with ese "reflexophones," the indicators on all e rheostats in the "reflexophones" are in-rrect, making it impossible for him to dif-ferentiate between any two vibratory speeds ith even a remotely approximate degree of curacy.

When Abrams talks of measuring vibra-ns of millions per second, with an instru-ent which can do only one thing, that one ing being the measurement of low resist-ces of electric currents, he exposes his ig-rance of the elementary laws of electrici-, as well as those of rates of vibration, and becomes a subect either for pity or for ghter. When Abrams leads a pack of her ignorant or dishonest physicians in the struction of health of thousands of men d women, his actions and those of the ERA lt, which he has organized and sponsored, ase to be either pitiful or laughable.

In the preceding article and in this one it s been shown that it is mechanically im-ssible for Dr. Abrams to accomplish the res he claims with his "oscilloclast," or the gnosis he pretends to obtain with his "di-gnostic machine." In a succeeding article will be demonstrated that Abrams' theory diagnosis and cure is fundamentally rong, according to what is now actually nown and successfully used by physicians of tanding, reliability and accomplishment in e fields of medicine and surgery. It will e further shown that, so far as any human ing knows today, the Abrams' principle of ibration, on which his so-called "discover-s" are based, is without foundation in fact, nd that his "discovery" of "electronic reac-ions" is a **figment of that same imigination hich interfered with the accuracy of certain lood tests when Abrams was connected ith the department of pathology in Cooper ledical Institute in San Francisco.**

GET THIS

THE idea of our "speaking our mind" rather freely of late about the pseudo-medical cults and the unscrupulous ex-loiters "doing their stuff" right out in pub-c, is not that we have any chip on our shoul-er nor that we have a knife at their throats, it that the public is a poor judge of its medi-l needs, is "long-suffering," and while it is aiting for a cure from an impossible source any of the diseases become serious and prog-ss to a stage of impossible cure.

Doctors should know this, be informed, and o out of their way to warn any specific case.

Concerning Insulin

J. M. BELL, MD., F.A.C.P.

¶ Insulin is not a cure for diabetes.

❖ ❖ ❖

¶ When you begin it you keep it up for life.

❖ ❖ ❖

¶ It is applicable in about 15% of cases.

❖ ❖ ❖

¶ It does increase carbohydrate tolerance.

❖ ❖ ❖

¶ It is most applicable in juvenile cases.

❖ ❖ ❖

¶ It is effective only hypodermically.

❖ ❖ ❖

¶ It is useful in surgical cases, gangrene, etc.

❖ ❖ ❖

¶ Its use is limited.

❖ ❖ ❖

¶ It is an excellent adjunct in diabetes.

❖ ❖ ❖

¶ When the next dope fiend is arrested with a hypodermic syringe in his pocket and his arm full of holes he can plead insulin.

COMPETENT CRITICS?

MRS. EDDY with one sweep of the "mind" wiped medicine off the map (?) By what divine right or any right had she to judge medicine? Imagine a non-medicus, prejudiced mind, eliminating all that the sages of medicine had massed!

Ben Franklin said, "He is the best doctor who know the worthlessness of the Most Medicine." Which proves what?

That that was Franklin's idea of medicine at the time. No doubt when he died he took his medicine.

Upton St. Clair wrote up Abrams and his system and passed judgment on it and ok'd it. And who is Upton St. Clair—to judge a medical phase? And has his mind a scientific bearing to judge scientific apparatus? and is his soul so simple that he might be engrossed with the "world benefit" and blind to possible fraud?

(The Los Angeles County Medical Society Board of Councilors says Abrams' method of diagnosis is a fraud· Which opinion is more likely to be competent?)

Mr. Paul H. De Kruif took his pen in hand to tell the world in a garbled, malicious version and showed—that a little knoweldge is a dangerous thing.

"Since the twilight dawn, the forces of ignorance and superstition, twin sisters of crime, have been opposing the forces which make for the development of science and art."

H. N. J.

Society Scintillations

CHANGE IN NAME

The Interstate Society of Radiology and Physiotherapy held a very successful meeting at Omaha, September 18th and 19th, under the presidency of Dr. C. L. Mullins, Broken Bow, Neb. In adopting a new constitution and by-laws, this body changed its name to the American College of Radiology and Physiotherapy, enlarging its scope and exacting the highest standard of qualifications. Dr. Samuel Beresford Childs of Denver, was elected president and Dr. R. W. Fouts of Omaha, secretary. Further report in our next issue.

MEDICAL SOCIETY OF THE MISSOURI VALLEY

The thirty-sixth annual meeting of this society was held in Omaha, September 20th and 21st, in conjunction with the Interstate Society of Radiology and Physiotherapy. Dr. Floyd H. Spencer presided at the sessions. An excellent program was presented for the edification of the members who attended this meeting. Dr. Barney Brooks of St. Louis, delivered a classical oration on "Diseases of the Blood Vascular System of the Extremities;" Dr. W. Turner Wootton of Hot Springs, Ark., made a masterful presentation of "A Consideration of the Immunity in the Life of a Syphilitic Individual." The officers elected were as follows: President, Dr. H. J. Lehnhoff, Lincoln, Neb.; first vice-president, Dr. Palmer Findley, Omaha; second vice-president, Dr. J. W. Waterman, Burke, S. Dak.; treasurer, Dr. O. C. Gebhart, St. Joseph, and secretary, Dr. Charles Wood Fassett, Kansas City. Dr. Granville Ryan presented an invitation from the medical fraternity and Chamber of Commerce of Des Moines, for the meeting of 1924, which was accepted. Full report of this meeting in our next issue.

SOUTHERN MEDICAL ASSOCIATION

The annual meeting will be held at Washington, D. C., under the presidency of Dr. W. S. Leathers, University, Miss., November 12th to 15th. Special rates of one and one-half fare will be in effect, open to all physicians whether members of the association or not. The New Willard Hotel is general headquarters. Arrangements for a special through car from Kansas City to Washington, are in progress, the plan being to leave Kansas City on the Missouri Pacific, Saturday, November 10th, at noon, arriving in Washington at 7:30 Monday morning, giving ample time for registration before the sessions open at noon. Full information regarding this special and certificates for the railroad may be obtained by addressing Dr. Charles Wood Fassett, 115 East 31st Street, Kansas City, Mo.

THE WOODSON BANQUET

Following the custom, adopted 13 years ago, Dr. C. R. Woodson invited the Buchanan County Medical Society to open the year's session with a chicken dinner at the Woodson Sanatorium. Those who have attended any of these functions know what that means, no one else does. The banquet consists of everything good from soup to nuts, with fried chicken and baked ham as centre field. Coffee follows, then cigars, then speeches. Seventy-five men attended this

The Management of an Infant's Diet

Malnutrition, Marasmus, Infantile Atrophy, Athrepsia

Mellin's Food	**8 level tablespoonfuls**
Skimmed Milk (1% fat)	**9 fluidounces**
Water	**15 fluidounces**

This mixture contains 56.61 grams of carbohydrates, thus supplying material that is utilized rapidly for heat and energy. The predominating carbohydrate is MALTOSE, which has the highest point of assimilation of any of the sugars, is immediately available as fuel and may be safely given in comparatively large amounts. The daily intake of protein from the employment of this formula is 15.54 grams, an amount calculated to be sufficient to replace depleted tissues and to provide for new growth. There is present in the mixture 4.32 grams of salts for replenishing inorganic elements.

The suggested modification furnishes nutrition in keeping with the character and amount of food elements best adapted to the particular demands of infants in an extreme state of emaciation and serves well as a starting point in attempting to meet the nutritive requirements of these undernourished babies.

Mellin's Food Co., 177 State Street Boston, Mass.

ear. Dr. L. Beck, president of the Buchanan County Medical Society, presided. After a pleasing talk indicating the appreciation of the society and good wishes for the host, the meeting was turned over to he host. Dr. Woodson was in good condition to make is usual hearty speech, wisdom plus jokes. Many nen were called upon for toasts. The Woodson cofee and cigars aroused the gray matter to such a degree that the speeches were better than ever before. Dr. Jacob Geiger spoke of his experience with Joseph Robidoux. Wallace moved to have a message sent o Jim Heddens in California. Spencer moved to have one sent to Dr. Ladd, who is sick. Kenny made a good talk, and Good, Fulkerson, Bell, Potter, Elam, he old fellows and new fellows. It was the most delightful of all the Woodson banquets. The invitation is already out for next September.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION

The annual meeting of this association will be held at Hot Springs National Park, October 9, 10 and 11, under the presidency of Dr. Henry Enos Tuley of Louisville. All sessions will be held in the Eastman Hotel. The guests of this occasion will include Dr. Frank Smithies of Chicago and Dr. William N. Wishard of Indianapolis. Any doctor who has ever attended a meeting of the Mississippi Valley will know what to expect in the way of a program. The hospitality of the Hot Springs physicians is proverbial. The Missouri Pacific railway offers excellent service from Kansas City.

SPINAL APPARATUS

Visiting physicians and surgeons are invited to call at the P. W. Hanicke Mfg. Co., 1013 McGee Street, if they are in need of abdominal supporters, elastic hosiery, or any deformity appliances. We made a special apparatus for the correction of lateral curvature.

MISSOURI VALLEY NEWS

Dr. Roland G. Breuer of Lincoln, Neb., has been appointed assistant superintendent at the State Sanatorium, Norton, Kas.

Dr. Hal Foster has removed his office to 1014 Chambers Building, southwest corner Twelfth and Walnut Streets, Kansas City.

Dr. J. H. Sampson of St. Joseph has returned from a California trip.

REMOVALS

Dr W. J. Hansen, 706 South Tenth Street to 2802 Jule Street, St. Joseph.

Dr. O. T. Arnold, McAllen, Texas, to 204 Ugarte Bldg., Laredo, Texas.

Dr. A. P. Kimball, Salome, South Dakota, to Casper, Wyoming.

Dr. I. H. Dillon, Lincoln, Nebraska, to Waterloo, Iowa.

Dr. O. A. Bandel, State Hospital, St. Joseph, Mo., to Mt. Pleasant, Iowa.

Dr. Oliver Fisher, Onowa, Iowa, to Sioux City, Iowa.

Dr. John S. McAtee, Council Bluffs, Iowa, to Alpena, Mich.

Dr. V. J. Meyer, Harlan, Iowa, to Mondamin, Iowa.

Dr. C. G. Geiger, 210 North 7th St., to 701 Faraon, St. Joseph, Mo.

U. M. C. REUNION BANQUET

There will be a University Medical College Alumni Reunion Banquet, Tuesday, October 9th at 7:30 P. M., in the Francis I Room, Hotel Baltimore, Kansas City, Mo. Price $2.00 per plate. For information address Dr. Hermon S. Major, Chairman Entertainment Committee, 3200 Euclid Avenue, Kansas City, Mo.

A well-balanced compound of Cascara, Podophyllin, Colocynth and Hyoscyamus.

Pil. Cascara Comp.

(Robins)

Mild, 1 Grain—Strong, 4 Grains.

They normalize peristaltic action instead of inhibiting it, as so many evacuants and cathartics do.

They stimulate a flow of secretions, thus encouraging a normal physiological evacuation.

A trial, the most convincing argument. Send for samples and literature.

✣ ✣ ✣

Campetrodin

Campetrodin is a convenient, soothing application for wounds, bruises, sprains, burns, boils, ulcers, etc. Heals rapidly.

Campetrodin—Double Strength, as an inunction, is especially valuable in reducing swollen glands and relieving obstinate deep-seated rheumatic and neuralgic pains.

Samples to Physicians on Request.

A. H. ROBINS COMPANY

RICHMOND, VIRGINIA, U. S. A

COMMERCIAL AND SCIENTIFIC EXHIBITS

The Success of the Commercial and Scientific Exhibits at Convention Hall has been assured. The sessions of the convention will be held at one end of the hall and the space remaining has been sold to the exhibitors. In addition to the Commercial Exhibit there will be a Scientific Exhibit and a Clinical Amphitheatre seating 2,500. These exhibits will be open from 8:00 to 10:00 A. M., 12:00 to 2:00 P. M., and 5:00 to 7:00 P. M., thus giving every visiting Doctor a chance to see the latest developments in medical supplies. Following is a list of exhibitors:

The C. V. Mosby Company, St. Louis, Mo.
Paul E. Johnson, Chicago, Ill.
W. A. Rosenthal X-Ray Company, Kansas City, Mo.
Radium Chemical Company, Chicago, Ill.
J. R. Siebrandt Mfg. Company, Kansas City, Mo.
The Sodiphene Company, Kansas City, Mo.
E. R. Squibb & Sons, New York City.
The Uhls Clinic, Overland Park, Kansas.
Victor X-Ray Corporation, Kansas City and Chicago.
Acme-International X-Ray Company, Chicago.
The Abbott Laboratories, Chicago, Ill.
The Atomic Company, Kansas City, Mo.
American Optical Company, Kansas City, Mo.
Merry Optical Co., Kansas City.
Riggs Optical Co., Kansas City.
Beck-Nor Company, Salina, Kas.
Briggs Photo Supply Company, Kansas City, Mo.
P. Blakiston's Son & Company, Philadelphia, Pa.
Burdick Cabinet Company, Milton, Wis.
Erschell Davis Company, Kansas City, Mo.
Horlick's Malted Milk Company, Racine, Wis.
Hettinger Bros. Mfg. Company, Kansas City, Mo.
The Heidbrink Company, Minneapolis, Minn.
High Tension Transformer & Equipment Co.
Hanovia Chemical & Mfg. Co.
Iodum-Miller Company, Kansas City.
Denver Chemical Mfg. Co., New York City.
Pneumo-Phthysine Chemical Company, Chicago.
Pelton & Crane Company, Detroit, Mich.
Physicians' Supply Company, Kansas City, Mo.
Charles H. Phillips' Chemical Co., New York City
McIntosh Electrical Corporation, Chicago, Ill.
Magnuson X-Ray Company, Omaha and Kansas City.
C. F. Mills, Kansas City.
Liebel-Flarsheim Company, Cincinnati.
Raysun Lamp Company.

PHYSIOTHERAPY

To those who are interested in physiotherapy, we would say be sure to come to Kansas City during clinical week, October 8 to 13, and visit the magnificent exhibit which will be made in Convention Hall. All the leading manufacturers will be represented, and it will be well worth your time, in addition to attending the clinics, to see these demonstrations which will be made every day in the exhibit hall.

Salicin is a useful drug in many dermatological disorders, especially in dermatitis herpetiformis.

Be very careful in passing instruments into a tabetic bladder. Such bladders are very easily infected.

An ulcerating chancre or chancroid in the case of a man at a cancerous age, may closely simulate a cancer.

A stricture impassable when the lower bowel is loaded may become easily passable after thorough purgation.



Medical Melange

DOG WEIGHS TEN MILLIONTH OUNCE

In a lecture, given February 13, 1923, under the auspices of the Pharmacy Department of Western Reserve University, Cleveland, it was demonstrated how the value of some drugs can be weighed more accurately by goldfish, frogs, roosters and dogs than they can by the most sensitive chemical balance. The lecture was delivered by Dr. Paul S. Pittenger, Pharmacologist for H. K. Mulford Company, Philadelphia, who explained and showed a number of the methods employed in the Mulford Laboratories for standardizing Pharmaceutical Products. The lecture brought out the fact that many of the most useful and poisonous drugs vary hundreds of per cent in their activity and still they cannot be tested by chemical methods. Apparatus and methods were demonstrated by which these drugs can be accurately standardized and adjusted to a definite strength by the use of animals. For example, digitalis can be accurately standardized and adjusted to a definite strength by the use of guinea pigs, frogs and goldfish. Dr. Pittenger demonstrated how a dog can weigh the ten millionth part of an ounce of epinephrine, a guinea pig the ten thousandth of an ounce of pituitary extract and a rooster the thousandth of an ounce of ergot. Without the use of such methods there is uncertainty and some of our most important remedies may be of proper strength, or they may be over-toxic, or useless. The methods described, therefore, represent one of the most important advances in present day medicine, in that they make it possible to standardize these drugs to a uniform strength, so that they become instruments of precision in the hands of physicians in fighting diseases in man and animals. Dr. Pittenger is also Professor of Biologic Assaying at the Philadelphia College of Pharmacy and Science and at Temple University, as well as a member of the U. S. Pharmacopoeal Revision Committee.

COD LIVER OIL MADE PALATABLE

One of the disadvantages attaching to the use of cod liver oil has been its disagreeable taste, which becomes more marked if the oil is used for a considerable period. Many patients are unable to continue taking the ordinary cod liver oil preparations on account of gastric distress occasioned. This objectionable feature of cod liver oil is particularly marked during hot weather. To overcome this objectionable feature of the use of cod liver oil, pharmaceutical manufacturers have introduced a variety of preparations. Cord. Ext. Ol. Morrhuae Comp. (Hagee) has long enjoyed the highest rang among them. It contains the essential qualities of the plain oil and yet, due to its extreme palatality, is free from objectionable features and may be given over indefinite periods without causing distress. Cord. Ext. Ol. Morrhuae Comp. (Hagee) offers to the patient every therapeutic advantage of the plain oil, so in giving it you may feel sure you are choosing for your patient a cod liver oil preparation that is both potent and palatable.

¶ Obstruction is not complete if gastric contents are bile stained and stool gives a positive test for hydrobilirubin.

J. M. Bell.

When A Tonic Is Needed

and the functions of the body are depressed and deficient, what restorative or reconstructive do you know of that will do more for the weak and debilitated than

Gray's Glycerine Tonic Comp.?

What tonic when given to patients convalescent from *influenza, bronchitis, pneumonia, diphtheria, scarlet fever* or *measles,* or from *surgical operations,* will so promptly stimulate the appetite, improve the digestion, increase the assimilation of food and thus restore vitality and strength, as Gray's Glycerine Tonic Comp.?

The answer to the foregoing is found in the thousands of medical men who use it regularly whenever a tonic is indicated. Their experience in countless cases has conclusively shown them that it has no superior in its field of use.

If you are not familiar with the therapeutic efficiency of Gray's Glycerine Tonic Comp., a trial in some case will show you the advantages of using a remedy that for over a third of a century has never failed in its responsibility and good faith to those it has served.

The Purdue Frederick Co.

135 Christopher Street, New York

THE TRUTH OF IODINE THERAPY

There is no truth more firmly established in the minds of observing clinicians than that to obtain the full benefit of Iodine therapy, it should be administered in a free state uncombined with alkaline salts and in soluble form. Another truth which has been equally well established is the fact that such a product is available in Burnham's Soluble Iodine. For more than twenty years it has been demonstrated to the medical profession that this product contains no alkaline salts or any other disturbing vehicle, and that it is quite unnecessary to lock up this valuable therapeutic agent with objectionable vehicles of any kind, but that Iodine can be administered as Iodine pure and simple. It is soluble in water in all proportions and in the gastric fluids as is readily demonstrable. The fundamental facts and inherent value of free Iodine therapy are admitted by medical writers of all shades of opinion and because of these special qualifications preference is shown by discriminating physicians for Burnham's Soluble Iodine whenever Iodine is indicated. Iodides have no effect on toxins and very little action on glands and cells. Free Iodine is the greatest cell and gland stimulant known. Iodides are given for the Iodine effect. Why depend on liberation of Iodine when you have a free soluble Iodine available? Free Iodide is both germicidal and anti-toxic. It not only stimulates the cells and glands to function properly, but aids in elimination of waste matter and solids. The great advantages of an Iodine product which meets the above requirements having been conceded, the wide range of indications and the proper application should be obvious to every thinking physician.

STIMULATING THE LIVER

An active cholagogue is urgently needed in certain diseases, but too often the beneficial effects obtained are endangered by the excessive catharsis that is incidentally produced. In Chionia the practitioner has a reliable hepatic stimulant that he can rely on to promote functional activity of the liver without causing greater stimulation of the bowels than is desirable. One to two teaspoonfuls in water, three times a day, is the dosage usually employed. In cases of extreme hepatic torpor, many physicians find it helpful to have the patient take, in addition to Chionia, a moderate dose of sodium phosphate every morning one-half hour before breakfast, for a week or ten days.

HOW TO ORDER A RABIES VACCINE TREATMENT

After many months of experiments in an endeavor to determine the efficiency of Rabies Vaccine, Lilly, under more prolonged storage conditions the Research Division of the Lilly Biological Laboratories recently made the interesting announcement that hereafter all Lilly Rabies Treatments will consist of two shipments only instead of twelve. Formerly the retail druggist, through whom all Lilly Products are supplied to physicians, was asked to telegraph the nearest Lilly Depot for a rabies treatment. The first three doses were shipped immediately from the depot; the remaining eleven doses, one daily, went forward from the Indianapolis Laboratories. Now the druggist orders the treatment from the nearest Lilly Depot and the first seven doses are sent on at once, the completing packages, doses 8 to 14, freshly prepared, being forwarded from Indianapolis in ample time to insure continuance of the treatment with the eighth dose on the eighth day. Rabies Vaccine, Lilly, is said to have won the preference of many physicians because of its uniformly high immunizing quality, the unusual success attending its application and the standardization of dosage. While many physicians have never been called upon to treat a case of rabies, it is well to be prepared when the occasion arises to provide a convenient, safe, efficient antirabic service. All orders should be placed through retail druggists who merely wire for V 776, stating the number of patients to be treated.

OLD ANTISEPTICS GIVING AWAY TO CHLORAZENE

To The Abbott Laboratories, of Chicago, belongs the distinction of having introduced the new chlorine antiseptics to the American medical profession. Shortly after their discovery by Doctor Dakin, and with his approval, this firm made these excellent antiseptics available to the profession. Incontestably, the water-soluble member of the group, known as Chlorazene, is the best antiseptic for general use now at the disposal of the physician. Chlorazene is not only very powerful, more so than phenol, but it is at the same time practically harmless for humans. Its harmlessness as compared to the strong antiseptics of the past is its outstanding merit, in view of which it may be entrusted to patients without misgivings. The Abbott Laboratories supply it in the form of tablets from which it is easy to make solutions. The firm offers to send samples to any physician on request.

A SEDATIVE OF UNUSUAL VALUE

By reason of its unusual worth as a sedative, Pasadyne (Daniel) occupies a high place in the favor of many careful and exacting clinicians. This high estimation of Pasadyne (Daniel) as a sedative agent has been justly earned. It is due to the distinct potency possessed by Pasadyne (Daniel) and its freedom from evil after-effects. Physicians have found that it may be pushed vigorously without danger. No depression or habit-formation follows its use, even continued use. Pasadyne (Daniel) is merely a concentrated tincture of passiflora incarnata. You will find it safe and satisfactory. A sample bottle may be had by addressing the laboratory of John B. Daniel, Ind., Atlanta, Ga.

LUBRICATION THERAPEUSIS

Nujol, the ideal lubricant, is the therapeutic common denominator of all types of constipation. Microscopic examinations show that too high a viscosity fails to permeate hardened scybala. Too low a viscosity tends to produce seepage. Exhaustive clinical tests show the viscosity of Nujol to be physiologically correct and in accord with the opinion of leading medical authorities.

In Acne DERMATONE Does
ZEMATOL Does in Eczema
Use Them and Prove Them
Backed by 25 years of successful clinical experience.
Catalog of pharmaceuticals mailed on request
CHICAGO PHARMACAL CO.
645 St. Clair Street, Chicago, Illinois

I AM NOT POOR

I am not poor. The universe is mine,
The sky is mine, the stars and moon are mine;
The sun and all the sunshine and the air are mine.
The wind that blows, the breezes everywhere are mine.
The land is mine, the landscapes of the land are mine;
The mountains and their peaks, great canyons, too, are mine;
The fields and forests, valleys, hills and dells are mine;
The babbling brooks, the rivers and the seas are mine.
The plants of every kind and the green grass are mine;
The flowers and their beauty and the birds are mine;
Ah, all the songs of all the birds that sing are mine!
And marvelous things so full of wonder, all are mine;
The awful grandeur of it all is mine, yes, mine!
The great Creator, God, who made it all is mine,
And all his attributes—they are all mine—
I am not poor, for, by faith, all is mine
And yours, too.

—H. H. Siegele.

THE SHEPPARD-TOWNER ACT

THE following are the high points of the Sheppard-Towner Maternity Act: Socialistic rather than democratic. Parading as a health measure. Federal state aid as a means of financing public health work is an unsound financial policy.

The fundamental doctrines on which the bill is founded were drawn chiefly from the medical socialistic and bolshevistic philosophy of Germany and Russia. The bill is intended to be an entering wedge for more radical measures—according to an editorial in the Ill. Med. Jr., March, 1923.

State of Washington Yields to Sheppard-Towner Maternity Law

The legislature of the state of Washington has accepted the terms and conditions of the Sheppard-Towner Maternity Law, and has created in the state department of health a division to be known as the division of child hygiene, through which the provisions of the law are to be administered. Ten thousand dollars has been appropriated from the treasury to meet the requirements of the federal act.—J. A. M. A.

HYPERSENSITIVENESS

Dr. W. W. Duke in the Ill. Med. Jr., June, 1923, in an excellent paper discussing "Specific Hypersensitiveness as a Common Cause of Illness," allergins, etc., says:

"A certain rather large per cent of individuals inherit a constitution which makes it possible for them to become readily hypersensitive to foreign matter." Of the relief, adrenalin; of the cure, avoidance of the provocative irritant; in the event it cannot be avoided. treatment by specific protein administration.

The Medical Herald and Electro-Therapist

Editorial and Business Offices
115 East Thirty-first Street, Kansas City, Mo.

Subscription, $2 a year, in advance, including postage to any part of the United States, Alaska, the Philippines, Cuba and Mexico. Canada, 25 cents additional. Postage to foreign countries in the Universal Postal Union, including Newfoundland, 50 cents a year additional.

The Medical Herald and Electro-Therapist aims to reflect the progress in the sciences of medicine and surgery, especially throughout the Missouri Valley and Southwest, the territory of its greatest distribution.

Concise and practical articles, news and reports of interesting cases invited, and should be typewritten.

The privilege of rejecting any communication is reserved, and all papers accepted must be for exclusive publication in this magazine, unless otherwise arranged.

To contributors of original articles a liberal number of copies of the Herald will be given (or mailed free of expense, if addresses are funished) and the printers will furnish reprints at reasonable rates, application for same to be made when proof is returned.

The editors are not responsible for the utterances of contributors or correspondents.

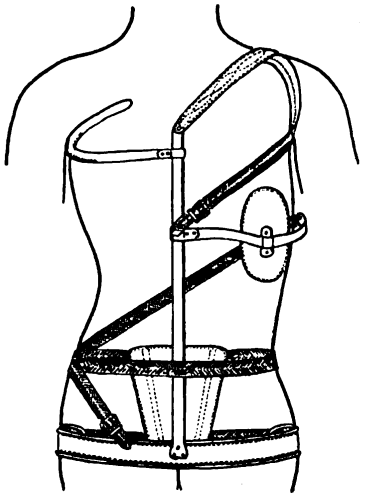
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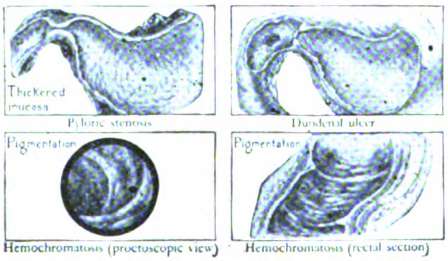
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Original Contributions
(EXCLUSIVELY FOR THE MEDICAL HERALD)

A CONSIDERATION OF IMMUNITY IN THE SYPHILITIC INDIVIDUAL

W. TURNOR WOOTTON, M. D.,
Hot Springs, Ark.

WHENEVER a syphilitic individual presents himself to me for treatment I am immediately confronted by this parahrase: "To be or not to be—cured." This uandary is born of the incomplete knowledge ve have of when a cure, why a cure, why and hat is latency? I shall endeavor to discuss hese few questions briefly emphasizing the iews of those workers who have, through exerimental medicine, made clearer some of the acts about immunity which bear on the life istory of the syphilitic individual.

It appears to me that the three points bove mentioned are so inter-related that discussion of immunity cannot be satisfacory or practical without a consideration of ll.

Taking up these questions as they appear, e have—

First: When a cure?

If there is any criterion upon which we may ositively base a claim that a person has been ured of syphilis in the sense of having freed hat organism completely of treponema, I am otally unaware of it. A symptomatic cure, es. A serologic cure—yes. But do either of hese necessarily mean that the human oranism no longer harbors foci of treponema? thing not. Even that interesting and everncreasing condition, reinfection, does not posively assure us that the host harbors no ther localized tho well hidden area in which ormant treponema exist.

Oration in Medicine, Medical Society of the Missouri Valley, Omaha, Neb., September 20, 1923.

The U. S. Public Health Service has originated the following as a standard of cure and it has been adopted by the American Red Cross Society:

a. No treatment for one year during which time there have been no symptoms.

b. A negative provocative Wassermann reaction.

c. A negative spinal fluid examination.

d. A complete negative physical examination having special reference to the nervous and circulatory systems.

e. A luetin test may also be included.

Under our present knowledge this is probably as good as we can do for mass or group treatment. Certainly there is nothing in it to distinguish between latency and cure. In "pre-Wassermann" days opinion was divided on the question as to whether treatment should be three years or whether it should be prolonged to five years.

I cannot see that the cure as judged by the Public Health Service Standard is as safe as the older standard and under existing circumstances I should much prefer it—only I think five years much too short a limit.

Lydston—1899—Speaking of reinfection said "such cases are especially interesting from the fact that they most conclusively prove the curability of Syphilis for were the disease not curable a second attack would be impossible," and further he said commenting on re-infection during the tertiary stage, "———— tending to show that typical tertiary lesions are not syphilitic at all but simply non-transmissible sequals."

Because he was able to transmit syphilis by injecting the macerated bone morrow and spleen of monkeys that were not susceptible to super-infection and also to reinfect certain animals that had been cured of their infection by drugs, Neisser gave it as his opinion that when reinfection was not possible, then the organism already harbored treponema. He did not believe in immunity per se but claimed all protection due to an existing infection. A great many others accept this theory without giving any definite reason for their inability to

reinfect other than claim there is already an infection. Such a view considered from the vantage point of recent experimental work, is not tenable. What is there about infection that prevents reinfection if not antibodies or an immunizing substance? Eberson and others have proven beyond much doubt the actual existance of immunized serum and have utilized it to prevent the activity of treponema.

Nothing has been done so far in experimental medicine that precludes the possibility of growing several strains of treponema on one host at one and the same time. Under any circumstances we know that it is extremely rare that such a host will be found and more especially so if the primary infection is of months duration. We know the host is not hard to find who will succumb to multiple infection if the inoculations follow daily—before the host has acquired an immunity, but in either event if the host fails to develop an immunizing substance or fails to continue its production, a superinfection at once becomes possible. Apparently not any of the investigators have allowed for the individual phase. Their work has been based upon a limited number of contacts so far, and apparently no consideration given the fact that rarely do two cases of syphilis run the same course—due more to the reaction of the host than the infecting organism, and that most likely there will be wide variations in the protective qualities developed in the serums of different individuals. Personal equation shall have to be considered as much in the study of immunity as in the management of the infection.

In spite of the apparently pessimistic statements appearing above I am very firmly of the opinion that we do cure, through efficient treatment, thousands of persons who have become infected with syphilis. But to prove that anyone of the thousands has been cured is beyond us.

We see men who were infected thirty and forty years ago, men who have reared large families, whose serum show a negative reaction, who have remained symptomless all these years—still we have no way of knowing that any one of those individuals is completely free of the original infection. From all practical standpoints it makes no difference—so he lives out his life and dies of some other condition. But it does make a difference to the fellow who has felt safe for twenty years only to find his immunity has run short and active symptoms have started up. What has caused these germs to lie dormant all these years if not a continuous production of antibodies—immunity if you will.

Can we not see the analogy of such cases in persons who contract the second case of small pox or measles—did not the immunity run out allowing him to become reinfected? And again in typhoid carriers who constantly harbor the organism but do not offer a fertile soil for disease producing activity because of a high degree of immunity that has been developed and continued?

So today we do not know when a patient is cured or if he is ever cured strictly speaking. We can only judge of the activity or non-activity of his infection.

It is not my intention to discuss any of the many schemes for treating the syphilitic so that he has a minimum of infection and a maximum of antibodies. Let me say, in passing, that the methods in vogue are far from satisfactory; the action of our drugs, from a bactercidal stand-point, leaving much to be desired; their method of attack is very incompletely known; the effect we strive for only partly understood and even the diagnosis is rapidly becoming a cut and dried laboratory process rather than a clinical finding.

We now come to the second: Why a cure?

From my standpoint there may be two cures; first a rapid-fire, quick-action, sterilizing process simulating the effect sought by Ehrlich, only spread over a slightly longer period, but produced entirely by the use of adequate amounts of trepanocidal drugs used at the proper time, and then a second, a cure which utilizes as much of the first as possible, admitting failure, and proceeding to then combine medicines, time, and what time does for the syphilitic, permits of the production of a sufficient amount of antibodies to prevent active aggression or cause retrogression and even extinction of the surviving infecting organisms.

Continuing this theory, the stage for a rapid cure would be, par-excellent, the septicaemic stage, for here for the first, last, and only time we have an opportunity for a direct contact within the blood stream, or directly contiguous to it, of our destroying agent and the infecting organism in its most vulnerable stage.

An abortive treatment to me is not plausible for the chancre is not the only source of systemic invasion. It has been shown that after as early as 48 hours from the inception of the infection the adjacent lymphatics are teeming with treponema, consequently cauterization or dissection of the chancre does not remove the only focus. This condition is rather analogous to cancer after the migratory stage.

If we do not see the patient during this septicaemic stage, if we are unable to successfully cope with the disease for various reasons, there remains a surviving small amount of infecting agent which promptly seeks those tissues of the host that offer the least resistance to their well being and affords the greatest protection against their enemy and from this entrenched position the fight continues. If the

host is cured we either overcome the survivors through protracted warfare with our trophic remedies, or a high state of immunity is developed within the host which acts as a direct treponacide or a possible combination of both a chemical and physiological effect. Therefore a cure is the result of the complete elimination of the treponema from the infected individual, but just what agencies operate to produce this effect or how this occurs we still do not know.

Then the third: Why and what is latency?

I am inclined to define latency as that period in the life of the syphilitic individual emerging from our failure to completely sterilize his system though having rendered his symptoms non est and his serum negative in reaction. A state in which the host harbors living treponema which are apparently not immediately affected by ordinary remedies, if at all, remedies which would sterilize the blood stream or tissues readily accessible to it. A state that is indeterminate as to time of continuance, three months, thirty years, or the duration of life.

And why this period of latency? In those individuals receiving what we consider adequate early treatment (and this varies in almost direct ratio with the number of physicians treating the disease,) latency is induced through the trophic medicines we administer being in either an insufficient amount or of too low a degree of toxicity to accomplish our aim. In the event no medicine has been administered then the host attempts to overcome the invasion through the production of antibodies, and the same effect in a modified degree may be accomplished.

The factor that continues or determines latency rather than active syphilis is the antibodies circulating in the blood and constantly manufactured within the host, and this is immunity.

Unless the antibodies and infecting agent strike a complete balance we do not have a latency. Latency is a conflict while either cure or active syphilis are conquests. If the immunizing substance falls short of its ability to exactly tranquilize the treponema we have the beginning of active symptoms—whether we at once detect them or not. Usually an aortitis or neurosyphilis makes considerable progress before it is regarded as more than a "Wassermann fast"' condition.

It has been stated that antibody production begins with the tissue first invaded and extends to other tissues as fact as the infection spreads or becomes general. If this is the correct view it would seem to account for cerebrospinal involvement after every other tissue has been sterilized as the nerve tissues are supposed to be lacking in power to produce antibodies.

What evidence have we, clinically, that a natural or acquired immunity exists? Before Shaudinn or Hoffman dreamed of a Spirochoeta, Colles and Profeta had guessed at immunity but knowing nothing of the organism, the means of transmitting the infection or latency, they misread their facts. An immunity they were dealing with, surely, but not of the permanent nature or for the reasons they attributed. Syphilis to them existed only as symptoms, not a disease the cause of which might lie dormant many years. Yes, they were wrong from a point of practical workings, but the underlying theory was sound.

Paralleling the class of infection from which they based their laws, we have a vast number of individuals who give absolutely no history of infection, who, through various complaints have never been suspected of harboring treponema, who have never displayed a single symptom suggestive of syphilis. These are patients who complain of nothing but feeling badly and loss of energy. You are amazed to find their Wassermann 4 plus positive and gratified that they regain normal status under antisyphilitic treatment. To me this evidence points most strongly to the fact that possibly for years these individuals have harbored treponema and only recently has the immunity begun to fall below a perfect counterbalance and they were progressing from a stage of latency to active lesions.

Illustrating the diversity of opinions on this subject, I quote:

Simon says "there is no such thing as real immunity to syphilis. The organism possesses a mixture of incomplete immunity and anaphylaxis or sensitization." He thinks the existance of sensitization is shown by an incubation period. He goes on to say "when the level of sensitization is superior to that of immunity, symptoms appear, their gravity increasing in proportion to the difference in levels."

He admits an immunity but not a true immunity. I agree with him in the belief that it is not strong enough to prevent infection, but still it is immunity.

Zinsser says: "The syphilitic subject acquires definite resistance to reinoculation soon after the appearance of a primary sore. This resistance is highest throughout the second or most active stage, declining as the tertiary stage advances, reinoculation or superinfection becoming increasingly possible at this period. When syphilis is cured susceptibility returns to normal."

Kolmer and Broadwell claim from their experiments that no treponicidal action of human serum was found. Eberson, on the contrary, found positive evidence in well controlled experiments on rabbits.

Hazen has accepted the views of Neisser and Bruck that no antibody formation exists during the course of the disease. All seem willing to admit a resistance is established but many do not consider it an immunity.

If a certain degree of immunity did not exist it is probable that not less than ninety-nine per cent of the people would be infected. Contagious syphilitics move about so freely that thousands of contacts are possible in restaurants, hotels, dining cars, drug stores and wherever one meets the multitude.

We know that a great many instances are recorded where under the same provocation one or more persons will become infected and as many others escape.

Luck is not the only plausible factor in the escape. The skin and mucus surface do not always have to be patently abraided for the production of a lesion any more than a chancre is necessary prior to a general infection. A slight maceration will suffice on one subject and will not on another. There is some protective agent in the integument of one individual that another does not have or possibly the degree is much greater in one than the other. We know this develops to a higher degree after one infection. It possibly exist in varying degrees in various persons prior to any infection.

Again, a person frankly infected, with flaring secondaries has received as treatment protoiodide pills over a period of six weeks, at which time all apparent symptoms abated, treatment was discontinued, the patient remained constantly well, clinically and serologically, over a period of thirty-five years. Certainly we would not consider his treatment adequate, even if the results were. And also we do not find many individuals who will react in any such manner, but when they do we are forced to conclude that after the primary help in overcoming the mass invasion, his reliance was upon his own system for results, and that system used antibodies as its immunizing agent.

From a number of workers who have given us direct assurance of an immune substance created within the body I think Eberson's work and reports as conclusive as any. He took the serums of known syphilitics in the latent stage, preferably where no treatment had been given, and mixed the serum with a suspension of virulent treponema pallida and injected it into the rabbit, constantly using suitable controls, and in no instance did infection occur, whereas it did in all of the controls. Summarizing his summary and in some instances quoting **verbatim** from his report on Immunity Studies in Experimental Syphilis (Archives of Dermatology and Syphilology, October 1921) we have the following: "The blood serum from persons having latent syphilis was found to have spirocheticidal properties. Rabbits were protected uniformly against infection with virulent spirochaeta pallida in combination with such serums."

Protective properties were found in serums of asymptomatic persons with latent syphilis with the following histories:

"Infection with syphilis dating back from three to twenty-five years."

"Patients who had received treatment until the Wassermann reaction had become negative."

"A number of patients who had no history of infection, who had taken no treatment and who had a slightly positive Wassermann reaction."

"An infant whose mother's serum was found to contain spirocheticidal properties."

"Spirocheticidal activity of serums in latent syphilis is of such a character as to prevent the normal dissemination of spirochaeta pallida from a primary focus."

"In the experimental animal, spirochetolytic serum may be developed in the course of six months to one year after the infection. In the rabbit, as in man, protective substances are found at a time when the infection has attained a relatively latent state."

"The presence of these substances in given serums apparently depends on the stage of infection. When definite latency has been established, the serum appears to protect against experimental inoculation whereas the serum from cases of early syphilis or those in which true latency has not been attained in not spirocheticidal."

"Continued treatment which renders a Wassermann reaction negative does not appear to nullify any existing protective property of the serum," "——— tendency to explain latency on a basis of blood immunity developed progressively from tissue immunity."

"Immunity need not imply a condition which is imcompatible with the life of a parasite. Latency connotes a balance has been struck in the individual between the antibodies and the invading parasites."

If we accept the work of these men as proof that an immunity is developed in the host after infection, can we see any bearing on the methods of treatment we are now utilizing?

If any, it would seem to be that a prevailing notion that an individual should be treated until serologically negative and then watched is putting the responsibility up to the antibodies pretty strong. When ordinary judgment is used I do not see evidence of organotrophic effect from the use of antisyphilitic remedies. I think the patient is vastly better off that gets a boost in the manner of a good course of treatment at least once a year for

many years after his serum has been made negative. I do not think we can temporize during the first six months of the disease. That is where he should get his cure. But after that intensive period is through, watchful waiting is not doing our full duty.

May I indulge in a few speculations!

Through the splendid work of the Physio-Chemists that is going on I confidently look for a test that will be conclusive as to the existance of treponema in the human system even to the "carrier state." Such a test will mean that we can tell at what stage an individual has been cured and not have to subject him to repetitions of treatment periods as we do now simply because we have to act on the law of averages.

We now administer drugs that leave open lesions strewn with dead treponema, demonstrated day after day. Vast improvement is being made in these drugs in reducing the organotrophic and increasing trepanicidal effect. Surely it is not too much to hope for the development of one that will render a complete sterilizing effect in the secondary stage.

We are apparently much in the dark as to just why we get results from administering antisyphilitic remedies in cerebro-spinal infections. Many observers claim that the amount of drug passing the choroid plexus is entirely too slight to have a trepanicidal effect—that whatever curative results are attained are due to the stimulation of antibody formation and there transmission into the cerebro-spinal fluid. A settlement of this question would have the utmost practical bearing on the debated question of spinal drainage versus Swift-Ellis treatment.

Much study and advanced work is also being done towards utilizing the immune serum of the syphilitic. I am not afraid to prophesy a serum that will totally obliterate all latent treponema, yes and it is perfectly possible for it to also prevent syphilis in the human just as typhoid and smallpox are prevented. I confidently look for such results.

The study of syphilis has just begun. The outstanding accomplishments of the near future should be the development of a successful trepanicidal remedy and immunity.

High blood pressure is not a thing to be toyed with: it is a big problem, of diet, rest, recreation, medication and psychology. These patients should not be told too much as to readings, as to results; they must not be lead to expect too much. The nitrites are probably the best medication, digitalis is sometimes helpful.

Read the list of "Good Things to Come" on advertising page 59.

HOW MANY HEMORRHOIDS?

By DANIEL MORTON, M. D., F. A. C. S.,
St. Joseph, Mo.

HOW many internal hemorrhoids may a patient have? If present hemorrhoids are removed by operation will others develop elsewhere in the rectum? If present hemorrhoids are removed will there be recurrence at the original site of removal? These are questions always asked the proctologist by the anxious sufferer, and it is the duty of the proctologist to take them seriously and answer them on a scientific basis. The patient knows that he has only one appendix, and that when it is removed there are no others to bother about, and that it will not return. He fails to grasp the fact that the appendix is a normal anatomical entity whereas a hemorrhoid is the result of a diseased process. There is much lack of knowledge on these questions among the general profession and I doubt if there are many general surgeons who can answer them correctly in spite of the vast amount of knowledge which some of them assume to possess at the present day.

The best answers to them that I have found are in the writings of W. Ernest Miles, Surgeon to the Gordon Hospital for Diseases of the Rectum, London, one of England's foremost proctologists. This article is largely a condensed statement and summary of his views on these questions here presented with the hope that it will be made available to others in general practice who do not have access to proctologic literature of an authoritative nature.

Perhaps we should first ask and answer the question, "What is a hemorrhoid?" I will quote some of the foremost proctologists as follows: **Tuttle.** "Hemorrhaids or piles are tumors chiefly composed of dilated blood vessels or blood clots situated beneath the mucous membrane or muco-cutaneous tissue of the anus and rectum. The cardinal features are a dilatation of the veins, a swelling, and an increase in the connective tissue stroma by which the convoluted vessels are supported." **Lynch.** "Internal hemorrhoids are vascular tumors resulting from thrombosis, dilation of the blood pools, accompanied by tissue infiltration and redundancy of the mucous membrane in the anal canal." **Allingham.** "Arterial internal hemorrhoids may be described as tumors varying in size, sessile or somewhat pedunculated, attaining sometimes very considerable dimensions, glistening or slightly granular on their surface, slippery to the touch, with an artery, often as large as the radial, entering

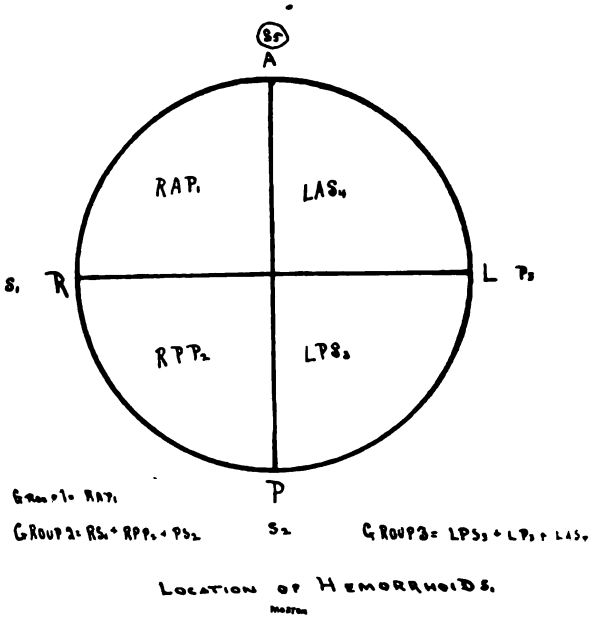
*Read before the Medical Society of Missouri Valley, Omaha, Nebr., September 21, 1923.

thru upper part." **Swinford-Edwards**: "These tumors consist of tortuous and dilated veins supported by but a small amount of connective tissue. Arterioles enter into the formation of the swelling and sometimes quite a large vessel, which can be felt pulsating, enters it from above. Cavernous sinuses are often formed as a result of absorption of the walls of adjacent venous saccules; they vary in size, some being very small, perhaps as large as a pea, others reaching the size of a walnut."

From these various definitions we get the composite picture of an internal hemorrhoid as being a tumor, underlying the mucous membrane of the rectum and anal canal composed of dilated veins and venules, and arteries and arterioles, with a stroma of connective tissue in which these pathological blood vessels lie, mixed in varying proportions. The essential point is that a hemorrhoid is a bloody tumor, composed of blood vessels, both veins and arteries.

The blood supply of the rectum is derived from the three hemorrhoidal arteries, superior, middle and inferior. It is with the superior hemorrhoidal artery that we have to do, as it runs under the mucous membrane of the rectum which it supplies. For this reason all hemorrhoids derive their blood from this artery which divides into a right and left artery, the right terminating in four branches and the left in three branches. Each one of these seven branches is the potential origin of an internal hemorrhoid. Rarely very rarely does the left artery break up into four branches, and then the potential number is eight. The potential number of hemorrhoids therefore, is seven, with a possible eight as the maximum. The distribution of these branches is constant and therefore the location of the hemorrhoids is constant, and they can be sought for each in its proper location, with the same certainty that the stars can be found by the astronomer who knows the chart of the heavens.

Miles has suggested, and the suggestion has been largely followed for years, that the rectum be charted by drawing an imaginary perpendicular line, and a horizontal line intersecting each other at the center of the anus, and dividing the rectum into four quadrants, right and left anterior and right and left posterior. In each of these quadrants certain branches of the superior hemorrhoidal artery are found and their corresponding piles. The pathological changes which produce piles first affect the larger branches and later the smaller branches. There is, therefore, a sequence in the order of the development and appearance of piles, those first developing from the larger vessels being designated primary and those from the smaller vessels being called secondary. The primary piles are three in number and are found as follows: One in the right anterior quandrant, one in the right posterior quadrant, and one at the left point. The secondary piles are four



LOCATION OF HEMORRHOIDS.

in number and are found as follows: One at the right point, one at the posterior point, one in the left posterior quadrant and one in the left anterior quadrant. The eighth pile when it rarely occurs is found at the anterior point and is secondary also.

Again these piles are not discreet but easily fall into three groups which Miles designates as Group 1, Right anterior. Group 2, Right Anterior—right posterior—posterior. Group 3, Left posterior—left—left anterior—anterior. Proctologists know that these groups are quite well outlined and in speaking among themselves designate hemorrhoids in the terminology here described. It would seem that the proctologist is justified in stating that seven hemorrhoids are potentially possible in every individual, and that with a very few individuals the number is eight.

Let us now consider the second question for a few minutes. "If present hemorrhoids are removed by operation will others develop elsewhere in the rectum?" Piles do not all appear at the same time; they may develop one after another. It is uncommon to find all of the seven potential piles present at one time. Miles says, "If a patient needs an operation for internal piles before he has attained the age of thirty he may not by that time have developed all the piles from which he is liable to suffer. If, however, a patient has reached the age of forty, at that time of life he will have developed all the piles he is ever likely to develop and, therefore, if the existing ones are completely removed he will never need a second opera-

tion." It appears, therefore, that before forty years of age an operation does not confer immunity, as hemorrhoids additional to those removed may develop later.

The third and last question is, "If present hemorrhoids are removed will there be recurrence at the original site of removal?" No, recurrence will not occur if the pile is removed completely. A recurrence means a faulty operation.

Bibliography

Allingham—Disease of Rectum. 7th Edition, p. 113.

Edwards—Diseases Rectum, Anus and Sigmoid Colon, p. 89.

Tuttle—Diseases Anus, Rectum and Pelvic Colon, p. 582, Last Edition.

Goodsall & Miles—Diseases of Anus and Rectum, p. 251, Vol. 1.

W. Ernest Miles—Observations Upon Internal Piles, S. O. G., November, 1919, p. 497.

PRESIDENT'S ADDRESS

FLOYD H. SPENCER, M. D.,
St. Joseph, Mo.

Gentlemen: Realizing full well that a President's address should be short and that it is more appropriate to dwell upon the past, present and future of the Society than it would be to present a scientific subject, I will endeavor, therefore, to present a short review of the history of the Society and advance a few ideas in regard to increasing the membership.

The organization had its conception in the office of Dr. Donald Macrae, Sr., of Council Bluffs, Iowa, where a few of the leading physicians of Council Bluffs were congregated. It was suggested that a District Medical Society be organized. A call was sent out to this effect, signed by Drs. Donald Macrae, J. M. Emmert and J. C. Denise. In response to this call a number of the leading physicians of Iowa and Nebraska met at the Ogden House in Council Bluffs and effected the organization of the Medical Society of the Missouri Valley. That was September 27, 1888, making this Society thirty-five years old this month. A few of the charter members are still active in the proceedings of the Society and are attending this meeting. A great number, including the prime movers of the organization in 1888, have gone to their reward in the Great Beyond.

The Society at first was comprised of only the leading physicians of Iowa and Nebraska. It gradually extended its sphere of usefulness to Missouri, Kansas, Minnesota, North and South Dakota and Arkansas. This progressive Society has a reputation for high class scientific work and it has grown from one of local repute to an organization of national importance. Many of the prominent men in the profession have read papers and delivered addresses before this body. This organization has truly helped in making medical history. Meetings were held three times a year in March, September and December for the first four years. Two meetings a year were held until 1918 when the spring meeting was discontinued.

The objects of the Society taken from the constitution speak for themselves. "The objects of this Society shall be to foster, advance and disseminate medical knowledge; to uphold and maintain the dignity of the profession; to encourage social and harmonious relations within its ranks."

The Society, as its name implies, embraces the entire Missouri Valley. This is an enormous territory and we are entitled to members from the entire Valley. I do not believe that we are taking advantage of that to which rightfully should be ours. I believe that strong efforts should be made to increase the membership throughout the Valley and to do this it will be necessary to hold meetings occasionally at places that have not been touched heretofore. I believe, also, that we should spend some money in advertising the Society by sending invitations, programmes and literature to every eligible physician in the Missouri Valley so that they will become acquainted with the organization and for what it stands. It would not be amiss to try to arrange a partial program at some future time composed of papers written by men in the Valley from a distance. Another method suggests itself to me at this time of increasing the membership by having the secretary address a letter to the secretary of every County Society in the Valley calling attention to the fact that the Medical Society of the Missouri Valley is also their Society and that they are eligible to membership. I dare say that a good many members would be obtained in this manner. There are, I am sure, very few men in Minnesota and the Dakotas who have even given a thought to the fact that they were in the territory of the Missouri Valley. This may seem radical to some of the older members but in this way only can we succeed in obtaining that to which we are justly entitled.

There are too many Societies at the present time. Some of them should join hands, but I am not now nor will I ever be in favor of this Society doing anything whereby it will lose its identity. Should other Societies care to affiliate with the Medical Society of the Missouri Valley, let that Society which has stood the test for thirty-five years still be the Medical Society of the Missouri Valley to continue to disseminate medical knowledge without polit-

*Read before the Medical Society of Missouri Valley, Omaha, Nebr., September 21, 1923.

ical bickerings and without fear or favor. This Society, while not as large as some of the others, is, nevertheless, one of the most scientific bodies in the United States. I have been a member of the Medical Society for about twenty-four years and can truthfully say, after having attended practically all of the larger Societies in this country that I have obtained more real benefit from this organization than have I from any of the others. In talking to other members of this Society they have corroborated the statement I have just made.

I consider it a great honor to be president of this organization and I wish to express to you my deepest gratitude and heartfelt thanks for your kindness in electing me to this high office.

SUNSHINE BABY—100 PER CENT TRIUMPH

By DR. GUY BOGART,
Los Angeles, Calif.

CHARLES Dwight, III, descendant of the famous family of Boston Dwights, is a triumph of modern health ideas carried out by trained experts. Mrs. Marie Dwight, trained nurse and dietetic expert, the baby's grandmother, is responsible for the "miracle" of perfection. Mrs. Marie Clemente Dwight graduated from the New York City Hospital and was formerly head surgical nurse of the Los Angeles County Hospital. During the war she saw active service as a Red Cross nurse. She was married to Wilder Dwight, M D., a nephew of Prof. Thomas Dwight, well known authority on anatomy at Harvard. His mother, Mrs. Charles Dwight, of Boston, was well known for charity and social activities. To Dr. and Mrs. Dwight was born one son, Charles II.

Marie Clemente Dwight was a classmate of mine in Prof. Arnold Ehret's classes in his Diet Healing System, when the Swiss savant was teaching in America, a line of original dietetic pioneering which has many advantages. Its slogan is "get clean and then stop eating the things which produce toxic poisons in the body." The closest approach to his ideas in this country is contained in the writings of the late Thomas Powell, M. D., of Los Angeles. The main point of the teachings is that the body is clogged by mucus, acidity and other toxic poisons, from too much food and the wrong combinations, and especially of a wrongly balanced ration containing an excess of starch and far too much protein.

Mrs. Dwight put the young mother on this diet from the first month of pregnancy. Starch was kept from the menu. Meat was banished from the diet, and protein foods eaten sparingly. Vegetables and fruits made the meals. Sugars and sweets, of course, were forbidden. The result was that there was no softening of the teeth, no acid conditions of the blood and none of the usual inconveniences and pains of pregnancy.

Charles Dwight, III, was born with a minimum of pain, and was started on his life journey via the new methods. The mother continued the Ehret diet, under the direction of Marie Clemente Dwight.



"THE SUNSHINE BABY"

At eight months of age, Charles Dwight, III, was taken to a contest among more than 600 babies at Los Angeles, the best that the whole southwest could furnish. Here he scored 100 per cent and high above any of the other children present. Since then he has continued to keep up his record. He is an outdoor child, taking his cold bath daily. Not an ounce, directly or indirectly, of poison forming food has gone into his system.

"It is the triumph of the modern trend of doctors and nurses," said Mrs. Dwight to me. "Charles, Jr., is the second generation in California. Of course, the Los Angeles country is the ideal place in which to rear children; but climate is a secondary matter. There are unhealthy children here and there can be healthy babies anywhere. I am glad to see the doctors paying more attention to diet. In

my army, hospital and private nursing, I have had many years of opportunity to test not only the ideas of diet in general, but of specific lines of dietetic practice which produce results.

"I find the people eat far too much food in general. And what they do eat is mostly wrong—to much starch and too much protein. The staff by which the miracle of Charles' perfection has been wrought is two-fold. On the one side is vegetables; on the other fruits. Vitamines, natural organic salts, fruit-sugars—all that the body requires are here."

The place to begin to improve the race, it has been said, is with one's remote ancestors. We can't go back that far, but we can begin with the grandparents of the next generation. We can begin with the babies. If we neglect that, we can begin with the mothers from the hour of pregnancy.

A new race is forming in America. If it can be fed properly, the human engine will have 90 per cent of its energy now used in removing surplus wastes from the body, to developing and solving racial problems.

EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS

JEFFERSON D. GIBSON, M. D.,
Denver, Colo.

TUBERCLE infection of the lungs may originate as a local foci of infection, manifesting very few or no clinical symptoms, or it may assume an acute, general or systemic character from its earliest inception.

Pulmonary tubercle infection of purely incipient stage gives so few clinical symptoms in many cases it is surprising to find on physical and X-ray examination how much infiltration has already taken place in the lung without producing any symptoms whatever, to the great surprise of the physician and consternation of patient. Naturally, symptoms in some form would have to become apparent before an examination would be requested, unless an examination was being made for something else, as for life insurance, etc., when the attention of the medical examiner is attracted to an area of infiltration with probably moisture and rales already present and perhaps bacilli in the sputum of which the subject would be wholly unconscious. In real incipient pulmonary tuberculosis there should be no bacilli in sputum and there should be very little sputum from the lungs proper, but there may be considerable catarrhal sputum from nose and throat.

When bacilli are demonstrable in the sputum, it is supposed to be an open case already, even if the focal infection is quite small in area. The medical profession is better posted on the diagnosis of this disease today than ever before in the world's history and it will not be necessary to dwell on the whole didactic regime in a short paper like this. So let us reason together on the subject of how to locate accurately and intelligently the very first signals of danger from this dread disease in our patients.

Much has been written about blasting the life of a young man by carelessly declaring him tubercular when he is not so afflicted. This is indeed bad, but nothing to compare with holding the same information from a patient who really has the disease until he has become so infected and the disease has made such an advance that his recovery is doubtful or impossible. Ignorance or carelessness makes either one of these conditions possible and liable to cause a great hardship or injustice to patient. What we should be able to do is to recognize the appearance of the first clinical symptoms of disease and act accordingly.

Incipient Pulmonary Tuberculosis

The patient is exceedingly fortunate whose first clinical symptom is raising a little blood, either mixed with sputum or otherwise. It produces such a shock it causes him to pause, to think, become concerned as nothing else could do. It brings him to his physician or to the one he thinks is the best to be had for lung troubles, as the more he thinks of it the more alarmed he gets and the more interested he is to know if he has this fearful disease. This is why he is so fortunate, as it brings him to the physician while the disease is in its most favorable state for arrest and cure. The physician should tell him the truth and should keep in close touch with and guidance of the case until he is fully recovered and can continue his accustomed employment. This may be the first and only symptom and disappear as soon as it came, but do not forget the warning.

The next important symptom likely to appear as an early warning is an acute pleurisy, this usually attended by such a sharp, stinging, stab-like pain that few will put up with it without the aid of a physician. I have known this pain to be called intercostal neuralgia, muscular rheumatism and later called pleurisy. Then when the lung began to show evidence of tuberculosis and patient failing rapidly, it had to be still further modified to quick or acute tuberculosis. Remember, if it is pleurisy you want to recognize it as such and remember, every pleurisy should be considered a tubercular pleurisy until otherwise proven and this is the important point I wish to impress—keep that pleurisy from going, if possible, into a quick and painful tuberculosis.

Read before the Western Electrotherapeutic Association, Kansas City, April 20, 1923.

The more incipient the case the less clinical symptoms will be present. Especially will this be the case in the lymphatics or more chronic types of invasion. Here we may have a spread of infiltration out of all proportion to the clinical symptoms which are very meagre, as slight cough or hack, clearing up of throat, pulse may be a little fast on exertion, easily fatigued, a malaise not common to individual, don't feel good and appetite is "off." Percussion reveals very little if anything, auscultation may show a jerky respiration, probably a puerile breathing and soon a very fine crepitation may be heard at apex. X-ray skiagram is likely to show increased size root or hilus opacities with fan-like opacities from enlarged lymphatics spreading out toward the apices of one lung more than the other. Frequently this fan-like opacity can be demonstrated before the discovery of crepitation or finding bacilli in sputum.

Occasionally we have a different type to deal with in insipient infection of tuberculosis of the lung. Here we may have no more physical signs than we had in other classes but the clinical symptoms are widely different. The systematic manifestations are out of all proportions to the physical findings in the lungs, so much so that the lung condition may be overshadowed entirely for the first few days. The case comes on with chill and high temperature, cough, blood spitting and pleurisy may be present, weakness, loss of appetite, restlessness and rapid emaciation, etc. Here X-ray plays an important place in aiding the physical examination in locating the first physical signs to appear in the lungs as they will appear in rapid succession producing a grave condition in that organ, as the manifestation of these acute cases are always to be dreaded. Never use tuberculine in any manner as an aid to diagnosis in these acute cases. These acute symptoms bring us to the beginning of acute general milliary tuberculosis, lobar pneumonic phthisis and bronchial pneumonic tuberculosis which are three of the most dangerous conditions we have to face.

Acute Milliary Tuberculosis

This type of tuberculosis is always supposed to be secondary to some local or other form of tuberculosis. While at first it may appear as of primary origin, it will be found that some caseous gland or other foci has broken down and emptied its contents into the blood stream and an entirely new and grave condition has become engrafted upon the mild and probably chronic condition already present. This new condition may be confined to the lungs or it may be spread over the whole body, accompanied by chills, high temperature, night sweats, great exhaustion, hemorrhages or meningitis. The physical signs in the lungs develop rapidly with great destruction of tissue before the death of patient.

Lobar Pneumonic Phthisis or Tuberculosis

Lobar pheumonic tuberculosis, as its designation would imply, is a grave and serious condition. It is usehered in with severe systemic symptoms, as chills and high temperature, flushed face, quick, full pulse, difficult breathing, cough, bloody or rusty sputum later with great depression, air hunger and pain in one side of chest, etc., few symptoms to indicate tuberculosis as they are all overshadowed by the pneumonic symptoms. Here the right or left upper lobe is soon completely consolidated and it may spread to more lobes. It appears under all examinations a typical ordinary lobar pneumonia. It does not begin to resolve in eight to ten days, because more chronic or slow in its course and is declared an unresolved tubercular pneumonia, and it is likely you will find the mucopurulent sputum very abundant and loaded with tubercle bacilli and other mixed infections. Streptococci and pneumococci will be very abundant. They hasten the formation of absesses and the rapid breaking down of the tissues rapidly placing the patient in a very serious condition.

Acute Bronchial Pneumonic Tuberculosis

This condition is a very serious one, but does not run quite as rapid a course as the previous type just mentioned. It is likely and generally is in the early stages taken for a bronchial pneumonia. It spreads in districts or local places throughout the lungs and does not infect a whole lobe at a time. A single consolidated district is usually composed of a lobule, alveola cells and small bronchioles given off from a small bronchus. These may coalese and form masses of considerable size or may be disseminated throughout lung. Sometimes these consolidated areas become caseated, walled in or become liquefied and are discharged through a bronchus to the great benefit of the patient.

Initial Pulmonary Hemorrhage

Hemoptysis has always played an important role in pulmonary tuberculosis. It manifests itself in any and all stages and types of disease, from its very incipiency even to cases in their direct extremity. No infected case can be so robust and sure of health but what its phantom may stalk at his side, and the poor invalid, already exhausted, dreads its untimely coming. The blood may be abundant or only a trace in early cases but it is from a congested irritated bronchial mucous membrane and must be recognized as a positive symptom of danger and is an early diagnostic sympton. In later stages when the blood comes from old cavity aeurisms or from broken down caseous areas the quantity may

be great and can sap the life of patient very quickly.

Acute or Chronic Pleurisy

Treauseau, a celebrated French physician, some forty years ago made the declaration that "all pleurisies were tubercular pleurisies." My old preceptor, R. C. M. Page of New York, used to say that that might be the case with the beautiful climate of Paris but would not hold good in New York. I am of the same opinion as the Frenchman as I am almost constrained to believe about all of the pleurisies I see in Denver are of tubercle origin. In many cases of pulmonary tuberculosis the whole train of symptoms follow upon an acute attack of pleurisy and they are usually troublesome cases, having much pain, severe cough, running considerable temperature, which are worrisome and annoying both to patient and physician.

Bronchial Onset and Other Conditions

Many patients date their illness from a certain severe cold or la grippe, typhoid fever, measles, etc. These cases usually have had a bronchitis, maybe a tubercle bronchitis, upon which have become engrafted a more or less mixed infection, producing a severe and harassing cough out of all proportion to the manifested lesion present. Bonney considers the essential factors played by la grippe and influenza in these cases is that they reduce the vital powers or resistence of the patient so much that he becomes an easy prey for a rapidly advancing tubercle infection. Again, through this bronchial route we may have an infection so mild, slow and chronic in its course that it may have spread over considerable area without attracting the notice of patient whatever, and only brought to light by some accidental investigation. The course of these cases is usually mild and more or less of a chronic nature. We will also find cases more or less with digestive symptoms, laryngeal and lymphatic tendencies predominating them.

Upper Air Passages

The nose, throat, tonsils and larynx should be kept constantly under surveillance so as to avoid danger of complications from them at a later date. The teeth frequently give much cause for worry from hidden foci and other septic conditions. It is important that the entire mouth, throat and nose should be kept in as thoroughly aseptic condition as possible. The teeth are exceedingly important factors in tuberculosis. I am sure I have seen patients lose the fight against tuberculosis simply on account of having no teeth and therefore not being able to eat and digest properly. Cough and expectoration are important symptoms in all cases. They are usually an index to the severity of case and also aid you in determining different stages of the disease.

Fever

The temperature is always a barometer as to the present and future danger of the case. Excessive temperature, cough and sputum, with chills and night sweats, betoken a rapid progress of case, driven forward by mixed infection toward a desperate ending.

Fibroid Phthisis

This type of tuberculosis is one in which the production of fibrous tissue predominates the case and is invariably of chronic type of disease. Few bacilli will be found in the sputum and usually there will not be much sputum and the little found will not be mucopurulent, but nearly white. Later, as the fibrous tissue increases, the bacilli may almost disappear but the production of fibrosis continues. There is little or no fever but great wasting, little cough, but short breath on exertion and air hunger. The progress of cases is slow and with care the patient may live for many years. If the sputum is very offensive look for bronchiestatic cavities.

In advanced and terminal stages nothing is more readily recognized than pulmonary tuberculosis but in the early incipient or first stages of the infection its positive detection may be extremely difficult, but the necessity of its accomplishment is no less imperative. Therefore, after careful physical examination and comparison with the clinical symptoms, x-rays should be made use of to throw more light or information on the case.

X-Rays

Williams of Boston, in about 1901, wrote one of the early and most interesting papers on the subject of x-rays in the diagnosis of pulmonary tuberculosis. The author has used x-ray skiagrams as a regular procedure in the diagnosis of pulmonary tuberculosis since 1904. The great world war has developed and perfected the technique and given a great impetus to this means in the diagnosis of the early stages of this disease.

The taking of many thousands of skiagrams of non-tubercular and tubercular chest conditions, and being able to follow many of these cases to autopsies made by the finest pathologists in the country has demonstrated the wonderful value of this agent beyond the cavil of a doubt in the early diagnosis of pulmonary tuberculosis. At the present time, with a good skiagram, accompanied by a careful physical examination and clinical history, a positive diagnosis should generally be made with accuracy and dispatch. Therefore, the author considers that every doubtful or suspicious case of pulmonary tuberculosis should not be allowed to go very long without an

x-ray examination being made of the chest, which, with the previous information already obtained, should enable the physician to make a correct and positive diagnosis of case.

In reading or interpreting these skiagrams you must remember your anatomical surroundings and pay careful attention to same. The apices, mediastinal space, the bronchial and mediastinal glands, the shadows of the hilus, thymus or its remains, size, position and shape of heart, the diaphragm and its angles, pleura, etc., all have their place and bearings in the reading of an x-ray film of the chest. It is also well to remember the outline of each lobe of the two lungs, their proportionate size and location in chest. X-ray films demonstrate the majority of cases that seem to have their origin or spread into the lung from the hilus toward the cortex, while some others seem to have their origin in pleura and spread from cortex toward the center or hilus of lungs by means of the lymphatics.

By way of parenthesis, I wish to say it has seemed to me that the cases spreading from the hilus by means of the lymphatics to the cortex, seen as fan-like opacities, are usually more amenable to treatment, or are milder and slower in their progress than the cases originating along the pleural border and spreading inwards.

Dunham calls attention and lays much stress upon "connective tissue septa," rich in lumphatics, dipping into the cortex and producing excellent barriers in preventing the spreading of infection by contact. No doubt these septa do aid in a great many cases but we know in some conditions the spread is so rapid and in mass formation that no barrier seems to have any effect. The first symptoms to be discovered by auscultation in the majority of cases will be a fine crepitation in the apices, usually of one lung. As Brown insists, it must be above the second costs-shondral union in front and above the origin of second rib in rear.

The x-ray will demonstrate in many of these cases the enlargement of opacity in the hilus area due to enlargement of the lymph glands and tissues before the crepitation can be demonstrated in the apex. In fact, the enlarged lymphatics as they spread from the hilus to the apex in a fan-like formation, sometimes called "Dunham's fans," clearly proves this contention. With an x-ray skiagram of a chest before you, with the history of the case fully known, the different stages and progress of the disease lie before you like an open book.

By means of x-ray the earliest and tiny foci of infection, with or without bacilli, or large mass infections and cavity formations can be equally well demonstrated. The first rales and foci of parenchymatous infection are usually found in upper apex of the right lung but may be in left lung and are shown on the x-ray film in varying degrees of opacity. There are cases in early tuberculosis, in which doubt still may exist, and here you will find a judicious use of tuberculin can be made to give you good service and aid you in making a correct diagnosis of case. Any case of pulmonary tuberculosis is so sensitive to tuberculin and so positive in its reaction to same that it can be used to great advantage in doubtful cases. As a regular procedure in borderline cases I use the tuberculin ointment after the plan of Moro. Cleanse the arm with water and soap near the biceps and rub a piece of ointment about the size of a pea into a small area of the surface of arm. Use the edge of the finger nail in the rubbing just enough to increase the blood supply, making it quite red, so as to insure the absorption of ointment. If positive, in twenty-four to forty-eight hours there will be small red punta appear on area and the quantity or number of these punta appearing in the forty-eight hours is a very reliable guide as to the quantity and activity of infection present. If there are a great many punta the infection is acute and quantity considerable, but if only one, two or three, etc., in all, it is very slight. I prefer this method to any other because it is absolutely harmless and on account of its prognostic value.

Prognosis

Great stress is laid in this short paper on early diagnosis for the reason of its great importance. If these cases are diagnosed before temperature and acute symptoms have developed they can be treated and kept at home at their usual work and never realize that they were sick. These are the cases where you can get some good out of tuberculin, or better still, Von Ruck's new vaccine. This new vaccine of Von Ruck's in these early cases is splendid for increasing their immunity, but do not make a mistake and use it where you have temperature and acute symptoms under any condition.

The cases of acute milliary, lobar pneumonic and bronchial pneumonic tuberculosis are among the most grave conditions in tuberculosis that we have to come in contact with. The mortality is very high. Remember these cases are always of mixed infection with streptococci and pneumococci predominating and must be looked after with special care. These are cases where x-ray for its direct and specific effect on both pathological and normal tissues of the lung, a one pole electric current for its effect on heart and metabolism with oxygen in some form for inhalation, added to the regular rest, forced feeding,

hygienic and medicinal care as are usually employed in the management of these cases, will bring some splendid results.

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

APPLIED THERAPEUTICS

(Continued from October number)

Affections of the Blood

ANEMIA. The causes of anemia are so numerous and varied that each case becomes an individual one and the etiological factor must be sought and found before we can hope for success of any therapeutic measure. As a general proposition the physiological indications may be met with autocondensation for faulty metabolism; diathermy of the femur to increase hemoglobin; local high frequency to correct nervous dysfunction. Body application of actinic rays improves general vitality and is an efficient help-mate in these cases.

Nervous Affections.

LOCOMOTOR ATAXI, or tabes dorsalis, while an incurable disease, much relief from its symptoms may obtain from physiotherapeutic measures. Autocondensation is indicated not only for its effects upon the general metabolism, but the assistance it renders to medicinal measures in their constitutional effects. It is a well known clinical fact that the high frequency current thru its physiological action in hastening the circulation materially assists the effectiveness of such drugs as arsenic, mercury and iodine and as one or more of these drugs are employed in this disease the use of this current not only seems rational but is of positive benefit.

Lightning pains and gastric crises so common in this disease may be relieved by high frequency sparks from a vacuum or non-vacuum electrode applied over the dorsal spine. The spinal location being chosen by orientation of the pain. For pains in the lower extremities spinal diathermy usually affords relief.

INSOMNIA is a relative term only as the amount of sleep required varies greatly with the individual. While four hours is sufficient for some, ten hours is not too much for others.

Etiologically, insomnia is due to faulty habits and hygiene, acute or chronic disease and is best but a symptom; therefore its treatment must be in accordance with its cause. When due to a condition in which high frequency is indicated it yields to such application. Sometimes, without known pathology, its empirical use is followed by good results. While no attempt will be made to explain its action, the following technic is sometimes followed by charming results: Seat the patient in front of the machine, place a long vacuum electrode in his hands; connect the electrode to the Oudin post of the machine; turn on a current of comfortable tolerance and continue it for 15 to 30 minutes. This application is very soothing to tired nerves. A daily treatment for a period of a week or ten days is sufficient; if no effects are apparent in this time it is useless to further continue the treatment.

Neuralgia and Neuritis.

Neuralgia and Neuritis is a subject of such magnitude that no attempt will be made further than to point out a few essentials in treatment.

(To be continued)

DR. HARRY EATON STEWART, of New Haven, Conn., says, in concluding a very interesting paper on the treatment of Pneumonia with the Diathermy Current in which he recounted a number of case reports:

"In several of the cases the Diathermy was not instituted until in favorable cases the temperature might be expected to start downward, but it is the opinion of the medical staff at the U. S. Marine Hospital No. 21, New York City, who selected these as test cases, that Diathermy helped in their recovery.

"When we have had many more cases to report on, we hope to be able to make a more definite statement, but this much we do know —that in **every single case and** in almost **every single treatment** the temporary effect upon the patients was remarkable. Cyanosis disappeared. The expiratory grunt when present was remarkably lessened or stopped entirely. Respirations were less labored and the patient received from two to four hours of very marked relief, in many cases obtaining some sleep.

"Now Diathermy has been ordered as soon as the diagnosis is made in every case of Pneumonia at the Marine Hospital. It is not too much to assume that in many critical cases this marked relief of symptoms may be the turning point in disease.

"Under proper technic there is no danger of ill effects from two or even three Diathermy treatments per day. The proper technic is of the greatest importance. The fall of temperature takes place by lysis where Diathermy is used. Pneumonia attacks all ages, and the rugged as well as the weak. The death rate is so high that any method of treatment which will lessen it to any extent is invaluable. **The results of this work are sufficiently encouraging to justify the wider employment of Diathermy in this disease.**"

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald

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All communications should be addressed to the Managing Editor.

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The Editors' Forum

MEDICAL SOCIETY OF THE MISSOURI VALLEY

THE 37th annual meeting of the Missouri Valley Medical Association, held in Omaha, September 20th and 21st maintained its traditions of pleasant fellowship, good papers, and profitable discussions so characteristic of this organization.

The meeting followed a two days' session of the Interstate Society of Radiology and Physiotherapy at Hotel Fontenelle. The joint banquet, Wednesday evening, was profitable to the fellows of each society. D. A. F. Tyler of Omaha, presided as toastmaster. As a pleasant preface to the after-dinner speeches, Dr. W. Turner Wootton, President Arkansas State Medical Association, was introduced. He gave the members the benefit of his observations in cult medicine and suggested timely advice regarding a remedy. Dr. B. B. Grover of Colorado Springs read an original poem. Dr. C. L. Mullins, the president, gave his annual address after which Dr. T. Howard Plank of Chicago gave an illustrated talk on Electro-Coagulation showing what can be done with unoperable malignancy of the face.

The Omaha meetings of the Missouri Valley Association are always lively and pleasant. The society began its existance as an Omaha-Council Bluffs society, under the tutilage of Dr. Donald McCrea.

The program was a full one and very profitable. The attendance was up to its usual good point, and the interest in discussion was animated. The evening session of Thursday, given over to the annual orations, proved to be an attractive feature. The oration on Surgery was given by Dr. Barney Brooks, of Washington University, St. Louis. His subject was, "Diseases of the Blood Vascular System."

That in Medicine was delivered by Dr. W. Turner Wootton of Hot Springs, Ark. The subject was, "Immunity in the Life of a Syphilitic Individual," was handled most masterfully.

On Wednesday and Thursday forenoons clinics were held in the Omaha hospitals, a feature much appreciated by those in attendance.

Dr. J. H. Lehnhoff, of Lincoln, was unanimously elected president of the society.

J. M. B.

M. V. ECHOES

¶ When operated on for hemorrhoids, over 40 years of age, one can feel assured of no return, no further operation; not so below 40. –Morton, St. Joseph.

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¶ Do not make a tentative diagnosis of tuberculosis; you may destroy the social and physiological balance of the case for life—be sure whether it is present or not.—Mayhew, Lincoln.

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¶ For transfusion use direct method; citrated blood is doomed, in short time, for the discard.—Wallace, St. Joseph.

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¶ In spite of government supervision of meat, the trichina spiralis is still among us.—Ryan, Des Moines.

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¶ In cases of inoperable cancer of the face, Plank, of Chicago, relieves and frequently cures, with violet ray.

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¶ Better use a small dose of radium over a long period, than a heavy dose over a short period.—Bowing, Rochester.

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¶ I have never seen any benefit come from X-Ray to deep cancer.—Potter, St. Joseph.

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¶ There is no specific index of the degree of tonicity of the heart muscle. The first reliable evidence is dyspnea.—Bohan, Kansas City.

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¶ Do not depend upon X-Ray for an early diagnosis of tuberculosis.—Gilbert, Colorado Springs.

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¶ Look for residual urine in every patient over 30 years of age, who complains of frequent urination.—Paul, St. Joseph.

¶ If there be any criterion upon which we may positively base a claim that a person has been cured of syphilis, in the sense of having freed that organism completely of treponema, I am totally unaware of it. A symptomatic cure, yes. A serologic cure—yes. But do either of these necessarily mean that the human organism no longer harbors foci of treponema?—Wootton, Hot Springs.

THE MILK CRIME

SHALL the doctors sit by and see the milk trust profiteer or put over impure milk? We in Kansas City are in the throes now of awordy newspaper cataclysm explaining a great deal about a very simple thing, pure milk, but not simple in the getting or producing, so that the public sits up rubbing its eyes and does not understand all it knows about pure milk and the milk ordinance.

Will the public ever know? Is it intended they shall know?

Doctors should know and should protect their patients. But in protecting their patients they cannot always protect the large commercial interests at stake in the handling of milk.

When Dr. Harvey pushed his work on the pure food label and let the chips fall where they may, great interests and capital were affected and fought back. Dr. Harvey stood out for the protection of the public. Power was brought to bear and Dr. Harvey was "ousted?" Later however the issue was forced and the label had to declare the contents—preservative and dilutent.

And so with the milk cap label it must declare the contents of the bottle. When a label reads "Pasteurized Milk" that of itself does not proclaim what kind of milk it is. It may be unclean milk. Pasteurizing it does not make it clean. But clean milk, pasteurized, is undoubtedly the safest milk.

The bug under the chip is that farm milk from Tom, Dick and Harry's farm at the four corners of the earth, milked and cared for under still rather primitive conditions, often is brought into Kansas City, pasteurized and sold as grade A, Pasteurized milk.

To produce grade A milk (for Kansas City, Mo.) the farmer must have a clean concrete floor, detached barn to milk in, also a separate milk house, cotton disc strainers; the cows and the milker must be washed and be clean, the udder washed, the milk must be cooled on milking. (If there is one deliverey a day it must be cooled to 50 degrees; if there are two deliveries a day cooling is not required).

Now the average farmer milks with dirty hands and clothes, and from an unwashed udder the milk is strained through a cloth into a milk can, the lid is tilted until the milk cools, and the can is set out on the road until the truck comes along and picks it up.

This milk is taken to the city and dumped into the pasteurizing machine with all the other milk, is labelled and sold as grade A milk.

Political and commercial influences are functioning frantically, newspaper advertising is run for propaganda, the issue is clouded and the public buys labelled grade A milk, pasteurized, believing it is getting the purest of milk, which sometimes it is and sometimes it isn't.

Pure milk is a concern of medicine, and the commercial interests of the milk business must ever go along in hand with a public health idea; they must keep open house and welcome inspection and investigation.

The political influence in the milk business is a living crime.

UP-TO-DATENESS

Doctor, I suppose you are progressive? How progressive are you?

Well, suppose you were right up to the minute on all the stuff—insulin, gall bladder drainage, intravenous, glandular therapy, 'n'ev'ry thing—and you knew your stuff I mean; and all the other doctors were practicing right up to now, progressivism, and making considerable noise treading water once in a while, and coming up for air, and going down for the third time—I say, if you and I and all the bunch were ultra progressive, the mistakes we would make and the failures we would see, floating wrecks on the sea of time, would discredit the medical profession quicker than Jack Robinson. We would loose prestige like the melting of the snow in spring. It would be chilling and fatal as well.

Why be afraid to be conservative? The conservative in medicine makes the fast progress. He makes haste slowly.

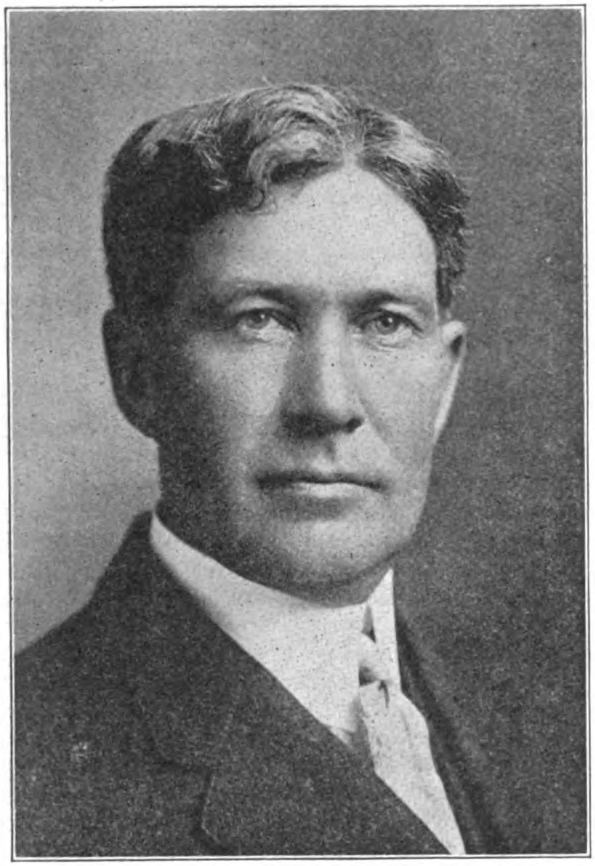
You know what I mean, Abraham, Isaac and Jacob.

HORSE SENSE STILL STANDS HITCHED

If there was or is anything in the Coue idea at all, then the idea that the general practitioner helps the patient to help himself get well—helps nature—I say, the idea and basic reason for the general practitioner still maintains. The modern idea of the laboratory and the idea of the diagnostic clinic, etc., and all that, is not the king bee idea (in all cases), but that the wonderful healing power of nature needs oftener a fair chance or a little assistance.

The modern trend in a choice between plain and fancy treatment of human ills is that we have much of the fancy—with a strong trend back to the plain.

Men of the Missouri Valley



HENRY J. LEHNHOFF, M. D.,
President-elect Medical Society of the Missouri Valley

DR. Henry J. Lehnhoff was born December 10, 1871 in Cass County, Nebraska, four miles south of Louisville. His early years were spent on his father's farm, and in attendance at the district school. At the age of twenty and twenty-one he attended a Congregational Academy at Weeping Water, Nebraska. In 1892 he entered the preparatory course then in existence at the University of Nebraska. He completed two years of preparatory work which was necessary to enter the University of Nebraska. He graduated with the degree of B. A. in 1897. The same fall he entered the Medical Department of Northwestern University, and graduated with the degree of Doctor of Medicine in 1901. He then spent sixteen months as an intern in St. Luke's Hospital, Chicago. In June, 1902, Dr. Lehnhoff located in Lincoln and has been continuously in practice in that city ever since.

Until 1910 Dr. Lehnhoff was in general practice with a leaning towards surgery, but in that year he decided to limit his work entirely to internal medicine. In 1910 he went abroad and spent four months in Vienna and some time in London, in post-graduate study. Before returning home he made a trip over most of Continental Europe and met his fiance in Vienna, where they were married. Since then he has been a frequent visitor at various medical centers in the United States. He has a personal acquaintance with some of the most noted teachers and writers of medicine. He has spent a number of seasons with Dr. R. C. Cabot of Boston. Among his colleagues Dr. Lehnhoff has grown to be considered an authority upon the disease of the heart and lungs. While he has spent a good deal of time in research work upon the heart and lungs, yet he has been no less interested in all of the problems of internal medicine.

About ten years ago he became interested in group medicine. He realized the necessity of careful and adequate diagnostic study of cases. He appreciated the advantage of the correlation of all of the clinical data obtainable, and has built up with the co-operation of others, a clinic wherein he holds the position of consultant and diagnostician in internal medicine.

Dr. Lehnhoff has always worked hand in hand with his colleagues for the upbuilding of the medical profession in Lincoln and the State. He has been continuously a member of the Lancaster County Medical Society and has taken part in all of its activities. He also is a member of the Nebraska State Medical Association, and for a number of years has represented the Second District as a Councilor. Five years ago Governor Neville appointed him a member of the Nebraska State Board of Examiners. He has held this office ever since, representing the regular medical profession. He is now chief of the medical staff and President of the staff of St. Elizabeth Hospital, Lincoln, Nebr.

All who know Dr. Lehnhoff are struck by his great stature, be being exactly in the class with Abraham Lincoln for height, although more robust in form. He partakes somewhat of the Teutonic characteristics in mind, having great power for concentration and thoroughness for detail. His mind is more or less of the single track, Wilsonian type in which all extraneous matters are ruled out and the line of thought follows along a well beaten track. He has an assertive personality and is at home with almost any class of men. Through his home life he has acquired some of the social graces. He is a lover of music, although his wife is better known as a singer. He loves good literature and seeks the companionship

of men and women who enjoy intellectual attainments and keep abreast of the times. He has been a member of the Unitarian Church in Lincoln and has taken part in their program in Lincoln, and has participated in the deliberations in some of their national bodies.

Dr. Lehnhoff has settled in a University town where his colleagues and many of his friends have known him since his student days. Then they called him "Shorty" Lehnhoff on account of his great height, and today many meet him with the same salutation. All know him as a frank, outspoken friend and physician. He is just entering the prime of life and the Missouri Valley Medical Society ought to have the best year of his existence for their guidance and inspiration. C. W. F.

A WORTH-WHILE CRUSADE

WHEN it is remembered that two million people in America suffer from hay fever and that the much lauded serum treatment does not cure, but merely holds the disease in abeyance for a season for most cases, it appears a most rational procedure to destroy the offending pollen bearing plants, which are mostly weeds, and avert a calamity as formidable as that of hook worm. Concerted action by farmers and city dwellers could in a few years make ragweed and its fellows a thing of the past. There are sufficient sufferers alone to organize societies in every county of the land to begin the destruction of these plants before they blossom, and ultimately eradicate them. A crusade of this sort which would restore to health two million people is of sufficient magnitude to demand the enlistment of the central government in its prosecution.

J. M. B.

LECTURES ON PHYSIOTHERAPY

OUR readers will be interested in learning that Dr. Sampson has arranged to visit Kansas City again and give his excellent course of lectures on Physiotherapy. All those who attended his last course will bear testimony to Dr. Sampson's ability in explaining the intricacies of High Frequency, Diathermia and Ultraviolet Light. The doctor is a past grand-master in these specialties, and he has the happy faculty of imparting his knowledge to the members of his classes. There will be ten lectures, two each day from 10 to 12 and from 2 to 4, beginning November 12th and ending on the 16th. The fee for the entire course is only $25.00. For further information and enrollment address the W. A. Rosenthal X-Ray Company, 412 East Tenth Street, Kansas City, Mo.

CARBON MONOXIDE POISONING FROM TOBACCO

THERE have been some articles in public print during recent months, presumably scientific, tending to prove that the harmful effects of smoking are the results of carbon monoxide. When it is recalled that chewing tobacco produces a syndrone perfectly analogous to smoking in those unaccustomed to it—viz., dizziness, weakness, rapid heart, vomiting and general prostration, it must follow that carbon monoxide cannot be the causative factor. The indictment against nicotine has never been disproved.

J. M. B.

FOOTOLOGY

CHARLES CROSS, M. D., San Francisco, president and director, announces the Footology National organiaztion of non-surgical orthopedic specialists with a school of instruction for medical graduates, training school for Footology Aides, physician and surgeon's office assistants for the treatment of ailing feet, rebuilding of broken arches, prevention of foot ailments and postural defects.

Dr. Cross' system consists of exercises on specially designed exercising appliances, massage, manipulation, mechanical force, static and dynamic force, supports, and then gradual removal of the support all the while keeping the patient at his employment.

He has made a specialty of this line of work for years both in the practice and the teaching. During the World War he served in teaching scientific examination of the feet and shoes in the military service of the United States.

The system has been thoroughly worked out and now a school of instruction has been established, along strictly ethical lines.

The field is very large and the benefits and relief to foot sufferers is great.

Dr. George Mosher, of Kansas City, read a paper before the American Association Obs. Gy. and Abd. Surgeons on Maternal Mortality in the U. S., in which he stated that no decrease in maternal mortality had been made since 1900, and said that much of the odium placed upon the disappearing midwife was misplaced. He thought sepsis and eclampsia claimed more than half the mothers who die. That housecleaning would come with improved teaching and individual methods.

Doctor, send us reports of cases, and news from your vicinity, and thus contribute to the value of this journal.

Kansas City's Fall Clinical Festival and Southwest Association

THE Clinical Conference sponsored by The Kansas City Clinical Society in Convention Hall, at Kansas City, Mo., October 8-13, 1923, was one of the biggest things medically ever staged in Kansas City. Biggest in point of attendance, in character and caliber of the noted essayists, and in the management and execution with which it was so successfully staged.

The Kansas City Clinical Society and Dr. E. H. Skinner in particular are to be congratulated on this most successful meet. Undoubtedly this same organization could successfully and ably handle the American Medical Association in the very near future. Go to it! We are pleased to announce that the annual meeting of the Medical Association of the Southwest will be held in Kansas City next fall in connection with the Fall Clinics of 1924.

A new and clever feature of this Medical meet was the many sectional Round Table Luncheons for the different branches of medicine held every day. This brought kindred souls and interests together and is close heart to heart talks with the distinguished visitors.

Banquets of various Medical groups, graduates, and alumni were held and greatly enjoyed. Old friends who had not met in years were again brought together.

A large exhibit was displayed on the floor of Convention Hall consisting of scientific and commercial exhibits. This is always an educational feature of any convention.

The many hospitals of the city were the centers of interesting clinics put on by the local prominent physicians and surgeons. These were abundantly supplied and well attended.

One outstanding general fact was apparent in the advanced work of the convention and that was in keeping with the trend of the times in all lines of thought and business, doctors are cleaning house in their profession.

Dr. Henry Dwight Chapin, president of the Children's Welfare Federation, New York City, gave the first paper, "The Management of the Undernourished Infant in Public and Private Practice."

Early in his talk he lamented Kansas City's infant mortality of 95. (That of the United States is 75.)

Doctor Chapin preached that the secret of reducing infant mortality was the care of the mother's breast, to keep the babies on the breast and to keep the breast functioning; that the fault of weaning the baby thus early was largely due to ignorance of the doctor in not attending to the drawing out of the nipples and emptying the breast. Dr. Chapin stated that nearly every breast can be made to function. He also emphasized the feeding too low a fat content and feeding for calories instead of building and growth.

The baby incubator has been abandoned on account of the high death rate.

The human breast milk dairy has been established in New York City. The price is 10 cents an ounce plus three cents for overhead. One mother furnished 40 ounces for eleven months and her own baby, which was getting too much, fared better after she began doing this.

The milking is done by hand, grasping the breast with the flat thumb just at the upper edge of the areola and the flat of the fingers below and making a quick compression movement with an outward pull behind the nipple. The mothers learn to do this themselves..

Dr. J. W. Williams, Obstetrician-in-chief, John Hopkins Hospital, gave a startling address full of startling statements and broad accusation of medical faults. He thinks there is something wrong in American Obstetrics revealed by statistics which show that 22,000 mothers die of childbirth annually. If we allow an average of four babies to each mother the estimate would make one death in three women in childbirth. In New York City one woman in fourteen dies of childbirth. Here was a startling accusation: The death rate in country practice is decreased by half due, he thought, (1) to women in the country being left alone (2) while city doctors (on the service) are trying all sorts of things.

Statistics in Massachusetts show that crease, due first to septicemia Pueperal fever crease, due first to septicomia Pueperal fever and next to Caserian section.

Williams emphasized that 7,000 deaths of women in childbirth in this country is unnecessary and could be prevented. Why don't we do it? This was his answer: (1) Not the proper education of doctors. (2) Public have not known that it could be done. He pointed out that doctors have more deaths in their cases than midwives according to a questionnaire he sent out, but he noted that midwives called doctors in to close their bad cases.

That we are approaching obstetrics too much as an Art than a Science, for there are

too many (1) Caeserian sections, (2) Forceps and repair to restore the virgin state, (3) Version. All are good when needed but not needed often.

The general practitioner stands ace high in the essayist's opinion: "He is a higher type than the averagé specialist."

Of puerperal infection he said, the less you do the better. Do not currette, put her in the sun, feed her, and say your prayers.

One-third of all women have retroflexion after childbirth; these should be sought out and corrected by a pessary in three weeks after childbirth.

Dr. Joel E. Goldthwait, of Boston, gave a paper on "The Chronic Patient, New Methods of Study Leading to Better Diagnosis and Treatment." He said the most common human complaint was backaches and that the most common disease was arthritis. To show the average human spine is far from the average text book on anatomy and that the average diaphragm is a misplaced affair due to posture, resulting in poor health and all sorts of symptoms the essayist showed many interesting X-ray pictures.

The challenge to the medical profession is the Diagnosis of the chronic patient, and posture is everything. The public schools were scored for training the strong healthy athletic fellows to the great neglect of the hollow chested, out of line fellow.

Dr. R. D. Carman gave a paper on The Roentgenologic Diagnosis of Peptic Ulcer. Dr. Carman said that the radiologist should be able to diagnose 95 per cent of gastric ulcers.

Dr. Reuben Peterson gave a paper on Use of Pneumoperitoneum and X-Ray Obstetrics and Gynecological Conditions, with lantern slides.

Dr. Peter Bassoe of Chicago gave "Lethargic Encephalitis: Pathology, Clinical Manifestations and Sequalae." A large number of clinical cases (seven) were shown, together with lantern slides.

He said the pathology of encephalitis was the same for all brain structures. Of the prognosis, he said a case may improve and then go two or three years or more (we do not know as yet) and then develop symptoms like paralysis agitans. Encephalitis has complicated the diagnosis of nervous diseases.

Dr. J. B. Deaver, Philadelphia, was introduced by Dr. Jabez N. Jackson, who however reversed the order, and very cleverly introduced the audience, "the boys," to Dr. Deaver, who gave a paper, a lecture, a whole show replete with wit and wisdom, and which of itself was worth the price of admission. His subject was "Focal Infection in the Abdomen," or obscure localized foci of infection in the abdomen which may give rise to disease. Here he said we may find them as well as in the teeth and tonsils. Chronic Appendicitis is the most common surgical finding. I can make more diagnoses by touch than by the microscope. I often operate first and then call for the leucoctite count, fearing that if I had it before it might have kept me from operating. Many doctors practice a lifetime and never acquire the sense of touch. Everything that occurs in the belly is due to appendicitis. * * * Where there is interstitial disease how can you wash the bugs out of the gall bladder by washing the bile out of the gall bladder? Putting too much faith in the duodenal bucket. * * * When you have epidemics of Flu and Tonsilitis you have more appendicitis. * * * The appendix is the intestinal tonsil and is responsible for other troubles—ulcer of stomach and duodenum. Have your gall bladder taken out and do not have diabetes. * * * "You may linger but I'll get you bye and bye."—The Undertaker. * * * The order has been, Doctor, Surgeon, Undertaker. Deaver would make this: Surgeon, Doctor, Undertaker. He thinks the gastric, Duodenal and jejunal ulcers are appendicitis in origin. Remove the appendix before the ulcer operation. * * * Correction of stasis is not a surgical but a medical case.

Dr. F. M. Pottenger, California, spoke on "Muscle Spasm and Degenration in the Diagnosis of Pulmonary Tuberculosis." He emphasized the diagnostic importance of palpation over percussion. "You can learn or diagnose anything by palpation that you can by percussion," he said. * * * "Every man in medicine must know TB and be able to diagnose it. It can be done." "Also note muscle changes due to nerve innervation due to inflammation in the lungs." "TB is usually an old sleeping focus flared up, not a fresh start."

Dr. Lewellys F. Barker of Johns Hopkins gave a lecture on Endocrine Disease, together with a clinic held in the general session. There was the remarkable condition of having more material (endocrine cases) than could be handled at the time.

Dr. Barker said "The clinical work in this field has preceded the Laboratory. * * * We know more about the diagnosis than we do the treatment. The diagnosis has run ahead. * * * The Laboratory and the General Practitician each think the other has buncum. We must be objective, not critical."

Dr. Walter Timme, New York City, "The Psychoneurotic Patient From an Endocrine Standpoint." Dr. Timme said that neuropsychiatry today occupies the keystone position

in medicine. * * * Do not fail to get the history of these patients from birth. He pointed out the medical treatment and what can be done as our knowledge is being rapidly extended.

Dr. Joseph C. Beck, University of Illinois (Medicine), "The Pathological Changes in Nose, Throat and Ear Diseases as a Basis for Treatment." Dr. Beck noted the lessening markedly of smashed and broken noses since the Volstead Act became effective, but thought that the Auto was taking the place of the fist. Pulling hairs from the nose is a great source of infection and may lead to sinus infection. "Cold is a sinus disease," he said, and decried the practice of spraying and douching the nose, washing away nature's protective secretions." He said only mild alkaline solutions would do. For "water in the ear" he recommended the tampon of ichtyol, only, and leave in the ear several days. He thought the American idea of removing the tonsils should be worked to the very end. But where masses are left and scar tissue it results in more harm than before. The technic must be right and then remove the tonsil with the capsule. "The enemy to the cause is the man who tries to cure by treating an infected tonsil by the X-ray—you are taking great chances. The X-ray is all right for the lymphoid tonsil and should be used.

Dr. E. V. L. Brown, University of Illinois (Medicine), "Newer Ideas Concerning Glaucoma." Dr. Brown said that Glaucoma occurred in the old maid type of individual, tempermental, repression type. The Jews are subject to Glaucoma. These cases should never be given Morphine nor Atropine. The lecturer reviewed at length the different theories and kinds of operations. "It is better to let the patient go blind on his own account in Glaucoma rather than operate and do anything to hasten it." He thought that the tenometer better than the ophthalmoscope in these cases.

Dr. John H. Cunningham, Harvard University, gave "General Principles Involved in Prostatic Problems." He thought bladder drainage was the chief preoperative procedure, this is followed by renal depression which is a danger period and must pass before prostatectomy, which may be months.

He thought prostatic obstruction was always present if there was residual urine even though you could not palpate an enlarged prostate.

Of the superpubic and perineal operations he thought the former carried the higher mortality, the latter the best results with better average functional results. For cancer of prostate, remove by perineal route and use radium.

Dr. J. F. Schamberg, University of Pennsylvania (Medicine), "The Cutaneous Manifestations of Syphilis and Their Differentiation From Other Skin Diseases." He thought that 10 per cent of the population of the United States suffer from Syphilis, and that it was less a skin disease than an organic disease. Since the spiroclette dies when it dries it is very rare to infect by towels and razors, etc.

EAVESDROPPINGS

¶ A doctor reached over my shoulder as I was writing and said, "The proof of the X-ray may be shown at autopsy." The rapscallion!

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¶ The number of doctors in attendance was near 1,400 and beyond expectation, and shows the doctors are eager to improve their Art.

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¶ The University Medical College Alumni Banquet at the Baltimore was attended by more than 300 doctors and was one of the big events.

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¶ Dr. E. H. Skinner was master of ceremonies, director of calisthenics, pep personified, and radiant light. He had a way with him that rested the audience and kept everybody smiling.

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¶ The wives who accompanied their husbands were highly entertained by luncheons, auto rides and theater parties.

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¶ The remarkable feature of the program in that there were no disappointments, no delays, and all the distinguished guests appeared as advertised.

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¶ Dr. E. H. Skinner, the genial schoolmaster, tersely put the Keynote of the meeting in this: "We have the Medical Gospel for the General Practitioners and General Medicine for the Specialists." That this was timely, to narrow the breech that has been too wide, was generally acknowledged.

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¶ The general sessions were remarkable in their attendance—and in the most unusual fact of 1,000 surgeons, doctors, specialists sitting in one session, all sharing the other's gospel.

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¶ Almost without exception the lectures were illustrated with lantern slides.

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¶ One speaker said Va-**ry**-o-lah, which is correct. Another said ar-cheeves, which isn't. And another said en-**keph**-alitis.

MEDICAL ASSOCIATION OF THE SOUTHWEST

The annual business meeting of the association was held at Convention Hall, on Thurs day of Clinic week. The following officers were elected for 1924:

President—Dr. W. H. Addington, Altoona, Kansas.

Vice-Presidents—Dr. L. S. Willour, McAl ester, Okla.; Dr. Joe Becton, Greenville, Tex.; Dr. O. B. Hall, Warrensburg, Mo.; Dr. St. Cloud Cooper, Fort Smith, Ark.

Secretary-Treasurer—Dr. E. H. Skinner, Kansas City, Mo.

It was voted to hold the next annual meeting in Kansas City, Mo., October, 1924, in connection with the Kansas City Fall Clinics. The Medical Herald and Electro-Therapist was selected as the official organ of the association, and all members in good standing will receive the journal from this date. Sincere regret was expressed on account of the absence of the president, Dr. Fred H. Clark, who has recently been assigned to the government hospital for the tubercular, Rutland, Mass. His duties would not permit his attendance at the meeting.

CONCERNING THE DOCTOR

At the annual meeting of the American Association of Obstetrics, Gynecology and Abdominal Surgery in Philadelphia, September 16-19, Dr. George C. Mosher at Kansas City was elected vice-president.

Dr. W. B. Kern, Brockman Building, Los Angeles, announces his return from a three months' stay in Europe in attendance upon the clinics of Vienna, Paris and London.

Dr. Earl Miller has been appointed director of the Department of Experimental Medicine of Parke, Davis & Company, Detroit, to fill the vacancy following the death of Dr. Ezra Read Larned, who was the originator and organizer of this department and occupied the position as head of the department until his death. Dr. Miller was assistant to Dr. Larned for twelve years and has a wide acquaintance among medical men interested in clinical research work.

At the series of lectures held in connection with the post-graduate course at the University of Buffalo School of Medicine, a lecture was delivered by Dr. Paul S. Pittinger, of the Mulford Laboratories, on the "Accurate Therapeutics Based on Drug Standardization." The lecture was illustrated by a number of physiological tests, and emphasis laid on the importance to physicians of employing drugs only of known definite standards.

WASHINGTON MEETING OF THE SOUTHERN MEDICAL ASSOCIATION REDUCED RATES AND SPECIAL THROUGH CAR SERVICE

THE Southern Medical Association will hold its seventeenth annual meeting at Washington, D. C., November 12-15, 1923. Dr. W. S. Leathers, Executive Officer, Mississippi State Board of Health, Jackson, Mississippi, is President.

This meeting will be made up of twenty sections and conjoint meetings—the programs of these meetings will cover every phase of scientific medicine and surgery.

The President of the United States will receive informally the members of the Southern Medical Association and their wives, Thursday, November 15th, at 12:30 p. m. at the White House. A reception at the Washington Club on Tuesday afternoon, where Mrs. Woodrow Wilson will be the guest of honor. The usual reception to the President of the Southern Medical Association will be held on Tuesday night at the New National Museum. Other special entertainments are planned.

At the first general session there will be an address by Dr. Geo. E. Vincent, President of the Rockefeller Foundation, New York, N. Y.; Oration on Public Health by Dr. W. S. Rankin, State Health Officer of North Carolina; Oration on Medicine by Dr. Stewart R. Roberts, Atlanta, Georgia; and Oration on Surgery by Dr. J. W. Barksdale, Jackson, Miss.

A joint dinner by the Section on Surgery and the Section on Radiology, as well as a number of section dinners, will be interesting features of Tuesday evening.

Physicians who golf are urged to bring their clubs. There will be a golf tournament over the championship course of the Columbia Country Club.

The University of Virginia Hospital, Charlottesville, have already announced special clinics for Friday and Saturday following the meeting. It is expected that Johns Hopkins and the University of Maryland will likewise arrange clinic programs for Friday and Saturday.

Special reduced rates have been granted by railroads on the certificate plan ($63.87 round trip from Kansas City). Each member of the Southern Medical Association will receive a certificate without application for it. Any other physician who is a member of his state society, desiring to attend this meeting, can do so, at the reduced rates, but a railroad certificate must be obtained before leaving home.

The New Willard Hotel is general headquarters. Arrangements for a special through car from Kansas City to Washington, are in progress, the plan being to leave Kansas City on the Missouri Pacific, Saturday, November 10th, at noon, arriving in Washington at 8:05 Monday morning, giving ample time for registration before the sessions open at noon. Reservations on this special and certificates for the railroad may be obtained by addressing Dr. Charles Wood Fassett, 115 East 31st Street, Kansas City, Mo., or W. H. Donny, Assistant General Passenger Agent, 625 Railway Exchange Building, Kansas City, Mo.

Society Scintillations

KANSAS CITY FALL CLINICS

(By an Eye-Witness)

WONDERFUL! Biggest event ever! A. M. A. calibre! Hotels crowded; fourteen national speakers. Registration, 1,500. Seats full: Barber shops, restaurants, doctors; Southern hospitality; ladies' dinners, musical teas, drives. Two days' clinics at eleven hospitals. Whole field of medicine and surgery covered; Convention hall filled with scientific and commercial exhibits, in charge of Dr. Fassett.

John B. Deaver, Philadelphia: Ovation. Focal infection in abdomen from gall blalder, appendix, duodenum, pancreas. Appendix-abdominal tonsil. Chronic appendicitis-tenderness, pain. "I can make more diagnoses by touch than by microscope. I get leucocyte count after the operation fearing that might induce me not to operate. Not gall stone, but gall bladder diseases. Infection is spread from interstitial involvement of walls, even after gall bladder is emptied."

* * *

Pottenger, California: "More information is obtained from palpitating muscles of neck and upper chest than by percussion." Muscle reflexes from lung. Pottenger is a neurologist.

* * *

Barker, Baltimore: Gentlemen, scholar. "Diagnosis of endocrine disease has progressed beyond therapy. Constipation, cold feet, more bed clothes—give thyroid and pituitary. Familial short comings are conveyed through nervous system and endocrines. Cataract common in diabetes mellitus."

* * *

Bassoe, Chicago: Encephalitis has made diagnosis of nervous diseases more difficult. Catatonia may exist without insanity. Be not mislead by Wasserman; syphilitics may have excephalitis. Acute stage of excephalitis is mistaken for flu, typhoid, cold. Look out for sequella one, two, six months later.

* * *

Beck, Chicago: In acute sinus disease with liberal secretion—do not spray nor swab; nature is providing drainage which cures. Frost bite of nose or ear, spray with ethyl chloride and cover with ichthyol dressing. If tonsils are infected they must be removed, but—it must be done and not merely attempted. Leave no masses imbedded. Streptococcic infection of throat—leave it alone or use only very mild alkalies. Boils in ear—do not open until ripe. Ear polypus is not safely removed by internal canal, needs radical operation.

* * *

Brown, Chicago: Glaucoma-tension. One of every hundred patients to the eye doctor has glaucoma. It occurs in temperamental patients. Iridectoney is still the sovereign remedy for glaucoma. Be careful of atropine and cocaine in the eye. Every general practitioner should learn the use of the tonometer.

* * *

Cunningham, Harvard University: In dealing with prostatic obstruction the surgeon must be also a biochemist. Malignancy the most common condition in males of advanced years. The cardio renal aspect of the patient is most important to consider. Mortality in prostatic obstruction twenty years ago 30 per cent. Now 5 per cent. Defective kidney most common cause of death. Patient must ingest three quarts of water daily to overcome toxemia.

Schamberg, University of Pennsylvania: Ten per cent of population of United States suffer with syphilis. It is less a disease of the blood than of organs. Spirochetes in spinal fluid does not mean neuro syphilis Blood test of no value in early period—dark field examination most important. Warts on palms and soles are due to microscopic germs. Electro radiation is the treatment of election for cancer of the tongue. Many who have congenital syphilis evince no symptoms—only have subnormal resistance. Treatment and cure much more hopeful than ever before.

* * *

Timme, New York: The psycho-neurotic patient. Inordinate fatigue—backward, gastro intestinal disturbance—headache, slow recovery from illness, disproportionate body, flabby, movable joints, backache, flatfoot, skin soft, velvety, cardio vascular system small, endocrines small, mitabolic low, small adrenals, low temperature, slow heart, weak muscles, low leucocyte count, general inadequacy, inability to fit into environment. Pathologic liars. Small cella tursica. Pituitary headaches, paraesthesias. No lateral incisors. Gastric neurosis. Low blood sugar. Do not give pituitary during headache, nor for two hours after meals. One-tenth gr. for few days, 1-10 gr. Thyroid and sodiumiodide 2 grs.

* * *

Peterson, Michigan University: Goldthwait, Massachusetts General Hospital; Russell D. Carman, Roentgenologist, University of Minnesota; Chapin, president Children's Welfare Federation, New York City; J W. Williams, obstetrician of John Hopkins Hospital: What a wonderful clinic! A post graduate course. Kansas City is to be congratulated. It has outdone itself. Can it be improved upon next year? Dr. E. H. Skinner, chairman, who kept the program moving every minute, will try.

BELL.

THE AMERICAN ELECTROTHERAPEUTIC ASSOCIATION

At the recent annual meeting of the American Electrotherapeutic Association, September 18th to 21st, in Atlantic City, Dr. Sinclair Tousey of New York was elected president, Dr. Frank E. Peckham of Propidence, R. I., and Dr. Frederic de Kraft of New York, trustees; Dr. Richard Kovacs of New York was elected secretary and Dr. J. Willard Travell of New York, treasurer.

SAINT JOSEPH CLINICS

The Buchanan County Medical Society, on October 3 and 4, put on its semi-annual clinics in better form with better response in clinical material and porfessional audience than ever before. They were held at St. Joseph's Hospital under the direction of Dr. John I. Byrne; at the Ensworth Hospital under Dr. F. H. Spencer and Noyes Hospital under Dr. C. A. Good. There was a wealth of clinical material so that long waits lost the operators some cases. Operating rooms and clinical amphitheaters were pushed for time all the days. The response of out-of-town doctors was very pleasing. Wednesday evening dinner was served at Hospital No. 2 at the invitation of Dr. Porter Williams, after which a neurologic clinic was held. Thursday evening the Buchanan Society entertained its friends at the Moila Country Club with a dinner, after which a splendid program was given, including an oration on Surgery by Dr. Ernest Sachs of St. Louis upon Trigeminal Neuralgia, and an oration on medicine by Dr. John Tierney of St. Louis on Endocrinology. Much credit is due the Clinic Committee for the happy course of the session and the favorable atmosphere it has created.

Governor Hyde has appointed Dr. John Zahorsky of St. Louis and Dr. Geo. C. Mosher, Kansas City, as delegates from Missouri to attend the annual meeting of the American Child Health Association at Detroit.

SOUTHWESTERN UROLOGS

One of the most notable events of the annual fall clinical week in Kansas City was the meeting of the Southwestern Branch of the American Urological Association. Several papers of unusual interest were presented by men of national reputation, embracing reports of original and heretofore unreported research work in the field of urology. Kansas City was fortunate in having the opportunity of hearing these men personally discuss these problems. The meeting was well attended by men from the several states covered by this branch of the society, Missouri, Nebraska, Kansas, Oklahoma, Colorado, Texas and Arkansas. The following were elected officers for the ensuing year:

President—Dr. Oliver Lyons, Denver.
Vice-President—Dr. Edwin Davis, Omaha.
Secretary-Treasurer—Dr. Clinton K. Smith, Kansas City.

The next yearly meeting will probably be held in Denver.

ALLERGY EXHIBIT

Dr. W. W. Duke, with the assistance of Mr. Durham, Miss Leas and Miss De Lisse, gave a demonstration at Convention Hall in methods of testing for specific hypersensitiveness or allergy. They explained not only methods of testing, but also demonstrated a collection of over fifty pollens representing the most important ones found in this district causing hay fever. On the table were the more important raw pollens, all of which were collected in Jackson County, and most of which were collected within the city limits of Kansas City. Detailed photographs of the plants and dried specimens of hay fever weeds were also shown. The major portion of the exhibit was obtained while making a botanical survey of the region.

JUST APPLY "COMMON SENSE"

A man lately wrote a noted scientist, asking him to settle a question. The scientist replied: "You do not need science to settle a question like that: common sense applied to it is sufficient." * * * This reply applies to seven-tenths of the things we argue about.—Ed Howe's Monthly.

LAST REQUEST

When
I
Go Out From Here
To Meet the Great Physician
Face to Face;
When
Sickness Closes in Upon me
And my Spent Body
Yields
'Gainst Kind Administrations,
Life's Battle Fought and Lost—
I do not Want
Adjustments any More,
Or
Hocus Pocus
Of my Mental State,
Or Psychic Makebelieve;
Give me to go in Hours Calm,
Serene,
And Unafraid,
With the Kindly Doctor There
Holding my Hand,
May I Smile
Back
At Him.

H. N. J.

A physician says that the best way to reduce is to eat apples. This method reduced Adam very rapidly.

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

DISEASES OF THE RECTUM, ANUS AND COLON

By Samuel Goodwin Gant, M. D. LL. D., Professor and Chief of the Department for Diseases of the Colon, Rectum, and Anus at the Broad Street Hospital, Graduate School of Medicine, New York City. Three Octave volumes, totalling 1,616 pages with 1,128 illustrations on 1,085 figures and 10 insets in colors. Philadelphia and London: W. B. Saunders Company, 1923. Cloth $25.00 net.

This work is in accord with that view of Proctology which maintains that the field of the Proctologist is the entire colon and not the rectum alone and that the Proctologist must become an abdominal surgeon as well. Those in sympathy with this idea hold that Proctology has grown beyond the limits of the anus and rectum and has invaded the abdomen and claimed all of the large intestine for its legitimate field of endeavor. The rectum and colon are no longer separated by an imaginary line, but the experience of Proctologists in handling diseases of the rectum has proven that many of these diseases are so related to diseases of the colon, and that many diseases of the colon are so related to diseases of the rectum that neither can be treated successfully alone and independently of the other. This course will command more of the respect of the profession, and place the specialty of Proctology upon a higher plane than it has heretofore occupied. To the surgeon who thus practices Proctology the derisive term of "pile doctor" will no longer be applied by the laity and he will become a foeman worthy of the steel of the abdominal surgeon. A new word is needed to describe the surgeon who confines himself to disease of the large bowel, that bowel which begins with the cecum and ends with the anus. Perhaps it might be "colonist" as the rectum is only a part of the colon, in the same sense as the sigmoid and cecum are parts of the colon. Such a term would have the great advantage of being understandable by the laity. The laity have no idea what Proctology means and always must be told its meaning. The vast majority of the laity understand what the colon is and the term "colonist" 'would convey to them at once the field in which the specialist so designated works.

The writer read the manuscript of the first book written by Gant when he was located in Kansas City and before he went to New York, criticising it and making suggestions regarding it to the author before its publication. This was in 1896, twenty-seven years ago. The only chapter in that book dealing with subjects outside the rectum was one on "Autoinfection from the Intestinal Canal." In the present book which we are now reviewing just about one-third of the space, about five hundred pages, is devoted to the colon above the rectum, the total number of pages being sixteen hundred and sixteen, leaving about one thousand pages devoted to Proctology in the limited sense of the word. In the present work chapter after chapter is devoted to the colon and its contiguous structures including the appendix. The book is therefore one that deals with far more than diseases of the rectum and places the Proctologist in the field of major abdominal surgery, for the colon is subject to diseases that require as great judgment, skill and knowledge in their handling as any medical or surgical condition of any other abdominal organ. The writer of this Review believes that the future Proctologist will be an abdominal surgeon,

specializing in colon surgery and ready to meet any abdominal emergency that may arise while doing such work, and that he will not confine himself to the rectum alone but will concern himself with the broad physiologic function of the colon, than which there is no organ within the abdomen more subject to disease that is disastrous to health and life. Gant's book, therefore, marks a new era in Proctologic literature, and is to that extent different from any previous work in the field of Proctology. Tuttle sensed the coming change and broke into the realm of the colon, and so did Matthews. These two men stand out preeminently as pioneers in American Proctology. There has never been a better book on Proctology than that of Tuttle's, a native Missourian, and barring the changes in scientific thought and knowledge since his death, it still remains a classic, preeminent in its field. It is one of the great books of all surgical literature.

Gant's book is the first that has essayed to cover the broader field of the Proctologist in a comprehensive way and to break with all the traditions of the past which held that the field of the Proctologist was confined to a few inches of the distal end of the colon. Naturally that part of the book, therefore, that deals with this new field is the most interesting. Among the subjects here discussed may be mentioned Anatomy of the small and large intestines, psysiology of the gastro-intestinal canal, diagnostic significance of manifestations pointing to disease of the colon and sigmoid, wounds of the colon and sigmoid, foreign bodies of the colon and sigmoid, enteroliths, malformation of the colon and sigmoid, the boundless field of colitis, focal infection of the colon and its relation to systemic disease, appendicitis, peri colitis and peri sigmoiditis, diverticulosis, megacolon, benign and malignant growths of the colon, enterostomy of all kinds, short-circuiting and colonic diseases of infancy. The author has swept the horizon and taken in many subjects never before treated in a book on Proctology.

The writer of this Review is of the opinion that in certain particulars too much is included and attempted and cites us a specific example, the chapter on appendicitis. The reviewer has seen the evolution of the surgical treatment of the disease from the beginning, was among those in the West who first operated in the pioneer field of appendiceal surgery and has performed hundreds of operations himself upon the appendix, and has seen the evolution of the surgical treatment of the disease from the very beginning. To one thus situated it is somewhat astonishing to see the diagnosis of appendicitis disposed of in eighty-seven words and the whole subject compassed within a few pages. The importance of the subject entitles it to more consideration than this, and it would have been far better to have frankly stated that the subject is too large to discuss in a work of this kind, and to have referred the reader to surgical treatises on appendicitis which are numerous and comprehensive.

It would seem that the subject of purpura hemorrhagica could likewise have been made a matter of reference to text-books dealing with it in an adequate way. It is a big subject and the author does not leave the right impression in discussing its treatment. The only procedure that has any value, namely, transfusion of blood, is not mentioned at all, but expectant methods that may lose for the patient his chance to live, such as opium, calcium chloride and gastric lavage are named as the agents upon which "chief reliance must be placed." This is bad doctrine to promulgate and is not in accord with the scientific treatment of this terrible malady, for transfusion repeated as often as required is the one thing necessary in all these cases. In one patient the writer of this Review transfused eleven times before the life of the sufferer was safe.

It would seem that the author has gone too far afield even under the sanction of regional surgery in dealing with such subjects as spina bifida which really belongs to the field of surgery of the nervous system, with backache due to dislocation of the sacro-iliac synarthrosis which belongs to the field of orthopedics, with sciatica which really belongs to the neurologist. It would seem that the better course would have been to point out the relationhsip of Proctology to these conditions, to have been content therewith, and to have left the discussion of them to the specialists to whom they properly belong, to be treated by them in an adequate manner. Their discussion here adds nothing to the value of the book as a work dealing with disease of the colon and rectum.

About two-thirds of the book, some eleven hundred pages, is devoted to Proctology proper, one hundred and twenty-five pages being given to hemorrhoids, one hundred and thirty-three pages to malignant growths of the recto-sigmoidal juncture, rectum anus and peri-anal region, twenty-six pages to anesthesia, nineteen pages to rectitis, eighty-seven pages to fistula, thirty pages to pruritus, thirty-four pages to rectal abscess, forty-seven pages to ano-rectal ulceration, thirty-three pages to fissure in ano, thirty-one pages to ano-rectal stricture, thirty-six pages to procdenture, nineteen pages to fecal incontinence, and so down the list of rectal diseases.

The most common rectal disease is hemorrhoids and this subject is exhaustively treated. The text is clear, the arrangement is good, the illustrations numerous and illuminating and the subject handled in such a way as to give a thorough-going knowledge of this disease.

A great deal of space is properly given to constipation and allied conditions, one hundred and nineteen pages in all. The subject is treated from almost every angle. The illustrations are numerous and good, many of them being radiographs. The treatment, medical, physical therapeutics and surgical, is voluminous and exhaustive and statistics abound.

Benign and malignant growths are discussed fully and modern methods of dealing with them elucidated. No more fearful disease can afflict a human being than cancer of the rectum, and we still can do little for these sufferers in the way of permanent relief. The illustrations on this subject, especially those relating to operative work, are of high class. Much intestinal surgery is treated necessarily and it is evident that much time and labor was spent on this part of the book. Intestinal exclusion, short-circuiting, enterostomy, ileostomy, colostomy, colotomy, cecostomy, appendicostomy, colectomy are all dealt with.

The chapters on fistula in ano and stricture are interesting and instructive and so are those dealing with other rectal diseases, but it is manifestly impossible in a review of this kind to enter into a detailed description of each subject discussed.

The book is mechanically all that could be desired. well printed on good paper, substantially bound, with eleven hundred and twenty-eight illustrations.

The work is a distinct contribution to the subject of diseases of the colon, treating them in a group as perhaps they have never before been treated in one work. It has a real value for the specialist, the general surgeon, the general practitioner and the college student, and can be truthfully classed as a valuable contribution to surgical literature.

DANIEL MORTON, M. D., F. A. C. S.

Just because a catheter cannot be passed up the ureter do not at once make a diagnosis of stricture or kink. Sometimes it is your technique.

THE TONSILS: FAUCIAL, LINGUAL AND PHARYNGEAL

With some account of the Posterior and Lateral Pharyngeal Nodules by Harry A. Barnes, M. D., Instructor in Laryngology, Harvard Medical School; Laryngologist, Massachusetts Charitable Eye and Ear Infirmary; Laryngologist, Massachusetts General Hospital. Illustrated, second edition. C. V. Mosby Company, St. Louis, Mo.

The first edition was brought out nine years ago. This edition mentions all of the operations for removing tonsils, both new and old operations are described. The chapter on local anesthesia is especially good. The complications and sequelae are described.

Chapter 1 takes up the general nature of Lymphoid Tissue.

Chapter 2, The Development of the Tonsil. The Development of the Crypts, also the Fossae and Capsule are described.

Chapter 3, The Anatomy and Histology of the Tonsils. The Crypts, Sinus, Tonsillaris and Plicae and Root of the Tonsils are taken up separately. Attention is called to the Fossae and Capsule. The pedunculated and burried tonsil makes two types. The blood supply of the tonsils. Arterial venous. The author states that one of the causes of postoperative pulmonary abscess results from the introduction of minute septic thrombi into the venous circulation. Adenoids consists of lymphoid tissue in the vault of the nasopharynx.

Chapter 4, The Function of the Tonsils. Dr. Barnes states that we have no certain knowledge of the function of the tonsils. A variety of functions has been given them. He gives the different theories.

Chapter 5 is given to the general pathology and bacteriology of the Tonsils. Their relation to systemic infections. He says infections arising as a direct result of the peculiar anatomic construction of the tonsils may be divided into two groups. first those which follow acute inflammatory lesions, and second, those which follow a chronic tonsillar focus. Dr. Barnes very correctly advises a careful examination of the teeth and sinuses before advising operative measures in adults. When the source of infection is found to be in the tonsils, tonsillectomy should be done. It is very necessary to remove all foci to get good results. The surgeon should first consider all the infections which cause the patient trouble before resorting to tonsillectomy.

Chapter 6, Diseases of the Tonsils. Acute tonsillitis, due to organisms. Streptococcus group. Other groups like Staphylococcus aureus or albus, pneumococcus or even the colon bacillus may occasionally be found. In such cases the crypts are filled with bacteria. Attention is very properly called to the ear complications which at times arises. Tonsillectomy should be done during quiescence. Dr. Barnes gives a very excellent description of all the diseases of the tonsils, causes, complications and treatment in this chapter. Our attention is called to diseases of the Lingual Tonsil in a clear way. Local and surgical treatment is given.

Chapter 7, Diseases of the Pharyngeal Tonsil. Adenoids. The anatomy and histology of adenoids is described. Dr. Barnes states that adenoids are normally present in all children from birth to puberty. They are frequently found in adult life. As a rule the pharyngeal tonsil becomes hypertrophied under the same conditions as the faucial tonsils. Adenoids. he states, become pathological in three ways. Chronic catarrhal inflammation. They obstruct free drainage of the eustachian tubes and lastly obstruct nasal breathing. I would add crowded teeth, causing work for the orthodontist to regulate and correct. The pathology, symptoms, diagnosis, prognosis, ear complications and treatment are very carefully given. Physicians treating these cases will do well to read and follow Dr. Barnes' book.

Chapter 8, Neoplasms, Benign and Malignant, and their treatment is given. X-ray and Radium is restorted to when indicated.

Chapter 9, Surgery of the Tonsils. The choice of operations. Tonsillectomy is a surgical operation and should only be undertaken by those who realize this fact. The operation can be done by several operations. Namely, Sluder or Snare and dissections. The entire tonsil should be removed. Local or general anesthesia can be used. Dr. Barnes advises general anesthetics for children. Local anesthetics may be safely used for adults. He gives excellent descriptions of the operation and illustrates it by good drawings. The suction pump, motor driven, is used.. The surgeon should use that method by which he can do the best surgery with less trama to the patient's throat. The treatment of the operative wound. He very correctly advises that sinus should be dry before the patient leaves the operating room. Postoperative treatment. Adult patients should be in the hospital and kept in bed for twenty-four hours. This may not be necessary in children.

Chapter 10, Complications and Sequelae of Operations on the Tonsils. Hemorrhage. This is a complication which gives the most trouble. Here the types and causes of hemorrhage is discussed, also prevention and treatment. Dr. Barnes very correctly says, make sure that the primary hemorrhage has ceased before patient leaves the operating room. The operator should never be in haste, simply because he has other patients waiting to be operated upon. Dr. Barnes gives most excellent rules and if operators follow them carefully they are very apt to control the bleeding or, better still, prevent it. Pulmonary Abscess may occasionally occur in 1 to 3,000 cases. He also gives directions that are very apt to prevent this complication. Diphtheria Carriers is also discussed. The X-ray and radium treatment of Tonsillar Hypertrophy is discussed. This line of treatment has aroused much interest. Results have been so varied, a much longer time will be necessary for this treatment before the end results can be obtained that will do away with surgery of the tonsil.

Dr. Barnes has brought out a good book and every operator should get the book and read it. He will find many most excellent points that will be beneficial to him in doing tonsillar surgery.

The C. V. Mosby Company of St. Louis deserve great credit for using such splendid type to read.—Hal Foster, M. D.

PRINCIPLES OF BACTERIOLOGY

By Arthur E. Eisenberg, A. B., M. D., director of Laboratories, St. John's Hospital, Cleveland, O. Second Edition. 214 pages. C. V.Mosby Company, St. Louis, Mo., 1923. $2.25.

The author of this book takes his work rather seriously and compiles an excellent text for nurses. He takes into account the vast numbers of nurses who are becoming laboratory assistants and technicians, and endeavors to furnish a competent text.

OBSTETRICS FOR NURSES

By Charles B. Reed, Obstetrician to Wesley Memorial Hospital, Chicago. Second edition, 44 illustrations, 400 pages. C. V. Mosby Company, St. Louis, Mo., 1923. $3.50.

Of text books on Obstetrics, especially for nurses, their name is legion, but Dr. Reed's book is especially full and directly explicit. The illustrations are numerous and good. The reviewer is of the opinion that the uterine massage by a well trained nurse is an excellent thing for many conditions after delivery; this he cannot find in the index or text. One feature of the texts of this publisher is that they are uniform in binding and size. H. N. J.

Medical Melange

ECZEMA

Every doctor, if only a single year in practice, has been called to meet eczema, at times to conquer it, but more often to claim no particular success if not indeed to acknowledging complete failure to deal with it.

There are remedies, aplenty of them, recommended in the standard texts. But taken as they come they can scarcely be accredited with anything like consistency of action or certainty of results. The prescriber, therefore, is forced to cast about, so to speak, for some satisfactory remedy, to try one after another, to experiment with many, hoping all the while for success in the case in hand.

A remedy—combination of value, according to users, is that offered by the Chicago Pharmacal Co., under the name of Zematol. This is an ointment for topical application. It is said to relieve the itching which so frequently is one of the troublesome symptoms of this skin affection, and in indolent cases to stimulate healing.

SPASTIC CONSTIPATION

Spastic constipation is characterized by narrow lumen with deep crypts, hypermotility and dry, hard scybalous feces covered with mucus. Nujol lubricates the constricted canal, permeates the crypts, softens and coats the scybalous masses, thus relieving friction and consequent irritation.

CHRONIC AUTO-INTOXICATION

In the treatment of chronic auto-intoxication we have learned that we can obtain satisfactory results only in so far as we are able to aid and promote the physiologic activity of the intestinal tract. It is not difficult, therefore, to understand the notable efficiency of Prunoids, for it is evident that they act by stimulating the natural processes of the bowels. Regular and thorough evacuations follow without the griping, distress, or reactionary constipation common to ordinary laxatives and cathartics, and the beneficial effects from the use of Prunoids are soon shown by a pronounced and gratifying relief of auto-intoxication and its train of distressing symptoms.

A NON-DEPLETING CHOLAGOGUE

As an hepatic stimulant, Chionia fills a very important place in the modern armamentarium, and the non-depleting character of its effect on the system is especially pleasing. The whole secretory system seems to show increased activity under its influence. A number of clinicians of broad experience have reported that they have used it in numerous cases of acute malarial infection with success, and regard it as a panacea in hepatic jaundice.

WHENEVER BROMIDES ARE NEEDED

Every year, for the past thirty-five years, a constantly increasing number of medical men have become convinced that Peacock's Bromides are far superior to any other combination of bromides. Whenever bromide treatment is required, they invariably prescribe Peacock's Bromides because of its purity, strength and dependable therapeutic action.



NEW ILETIN DEVELOPMENTS

Increased Potency—Reduced Price—Released for Sale

Our readers will be interested in a recent development in the production of Iletin (Insulin, Lilly) particularly those who are using or who contemplate using this diabetic treatment.. Effective October 15th, Eli Lilly and Company, to whom was accorded the privilege of commercially developing Iletin (Insulin, Lilly) announced three facts of importance concerning the product: Increased potency; reduced price; and the release of Iletin for sale through the usual channels of the drug trade. The original physiological unit, adopted by Professor MacLeon and his associates at the University of Toronto, was the amount of Insulin which, on injection subcutaneously in two-kilogram rabbits, lowered the blood sugar below .045 per cent, producing convulsions within two to five hours. This unit was considered too large for clinical purposes and with the consent of the Insulin Committee, a provisional clinical unit was adopted which was one-third of the amount. The strength of this provisional unit was found to differ from the Canadian unit due to different local conditions and the methods of standardization employed. In order to have uniformity, the Insulin Committee of the University of Toronto has established a definite standard to which the Lilly Product, Iletin, will conform by a 40 per cent increase of unit strength. The new and more potent unit will be designated by the letter "U" to distinguish it from the former strength designated as the "H" unit. **All patients who have been receiving the "H" units must have a lower dose on starting the product bearing the letter "U."** Great care must be observed to avoid overdosage and hypoglycemic reaction. Iletin is supplied in two strengths, as heretofore: Iletin U-10 contains 10 units per c.c. or 50 units per ampoule; Iletin U-20 contains 20 units per c.c. or 100 units per ampoule. Concurrent with the announcement of a more potent unit, Eli Lilly and Company announce a reduction in the price of Iletin that, considering the increased potency as well as the lower charge, amounts to a 50 per cent reduction in cost. Eli Lilly and Company have expressed a desire to make this product available to persons of all circumstances and ask the earnest cooperation of both the drug trade and medical profession to that end. The supply of Iletin, contrary to statements that have appeared frequently in the public press, is sufficient to care for any demand that may possibly arise. The cost to the patient per day, under present conditions, can be said to be very moderate indeed. In order that the needs of the medial profession may be served more efficiently, Iletin is now available through the retail drug trade. Further information on Iletin is contained in a new and interesting booklet prepared by Eli Lilly and Company which will be sent to any physician on request.

INDOLENT ULCERS

In the treatment of long continuing indolent ulcers which have resisted all other forms of treatment, it has been found in some cases that the local and systemic use of Ectol (Battle) exerts a gratifying effect. In using Ectol (Battle) for this purpose it is suggested that following thorough cleansing of the ulcer dressing saturated in Ecthol (Battle) be applied to the lesion. In connection with this local treatment Ecthol (Battle) may be given internally. Locally it exerts a germicidal and healing influence and internally its purpose is to increase tissue resistance. At least try it in an obstinate case.

Monkeys tire of anything quickly, and divorce statistics indicate that there may be something in that Darwin theory.

When A Tonic Is Needed

and the functions of the body are depressed and deficient, what restorative or reconstructive do you know of that will do more for the weak and debilitated than

Gray's Glycerine Tonic Comp.?

What tonic when given to patients convalescent from *influenza, bronchitis, pneumonia, diphtheria, scarlet fever* or *measles,* or from *surgical operations,* will so promptly stimulate the appetite, improve the digestion, increase the assimilation of food and thus restore vitality and strength, as Gray's Glycerine Tonic Comp.? **The answer to the foregoing is found in the thousands of medical men who use it regularly whenever a tonic is indicated. Their experience in countless cases has conclusively shown them that it has no superior in its field of use.**

If you are not familiar with the therapeutic efficiency of Gray's Glycerine Tonic Comp., a trial in some case will show you the advantages of using a remedy that for over a third of a century has never failed in its responsibility and good faith to those it has served.

The Purdue Frederick Co.

185 Christopher Street, New York

CANCER, ITS CHARACTER AND TREATMENT

This is the title of a neat pamphlet from the press of the Fellows Manufacturing Company, New York City. The text of this brochure covers in a brief form, all that is known concerning the origin of cancer and the many efforts of scientists to fathom a remedy against the ravages of this disease. The subjects are carefully arranged and classified, and appended is a bibliography, with references, quoting the authorities who have written upon this intensely interesting subject. If you have not received a copy, drop a card to the Fellows Manufacturing Company, 26 Christopher street, New York.

THE RELIABILITY OF ERGOT PREPARATIONS

A variety of methods for assaying ergot have been employed in the past, some of them chemical, some physiological. The drug contains two or three active therapeutic principles, besides some which were at one time considered important but are now generally discredited. Among the latter the most conspicuous example is ergotinic or sclerotic acid. Chemical assays of ergot, stoutly defended for a time as being more accurate than physiological methods, hafe been largely superseded by the latter, for it is now admitted that the darkening effect of a standard specimen upon the comb of the White Leghorn cock is not only a practical gauge of therapeutic palue, but as accurate as any chemical test thus far depised. The cock's comb method was applied originally, on a commercial scale, by Parke, Davis & Co, whose advertisement in this issue on the standardization of Ergot is one of a series directing professional attention to the progress of the standardization principle along physiologic lines.

AN OPEN LETTER

Dear Doctor: With the better knowledge of the causation of diseases, particularly those which have their origin in the gastro-intestinal tract, comes a keener appreciation of the importance of thorough and well directed elimination. An eliminant should not mean simply something that is merely an evacuant; it should mean some agent that will quickly and without distress or irritation, empty the bowel, and stimulate secretion and excretion of the mucosa cells. ABILENA WATER fulfills these requirements most satisfactorily. It is easier to take than any of the other salines. That it does not irritate is evidenced by absence of nausea, straining or tenesmus. ABILENA WATER is the ideal eliminent in all cases where acidosis is a factor. You will find it also of great value in treatment of cases where such symptoms as headache, loss of appetite, faulty nutrition, toxaemia, etc., are present, even though constipation does not seem to be a contributing element. We hope AbilenA will be of service to you.

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Modern medicine, scientific medicine, is being developed by the accumulating knowledge and facts resulting from investigation and research in the underlying sciences. So great is this mass of information that it is practically impossible for the physician to comprehend its full bearing on practical medicine. Indeed, much of it is in a state described as altrascientific. Particularly is this true in the department of biology and the study of the response of cells to elemental salts. To reach the physician for application in practical medicine, an intermediate step, that of the study of the effect on the living animal, is required. In this way ultrascientific facts are brought into the realm of medicine. This development is illustrated in the work done by Loeser at the New York Intravenous Laboratory. Biologists have frequently reported the influence of certain salts on cells of isolated tissue, and particularly the action of Potassium. With knowledge of this, Loeser has proceeded to study the effect of Potassium on living animals using sodium salts as the control and basis of comparison. The results, when compared with the reports of biologists, are most interesting and furnish a very striking illustration of the development of the practical from the ultrascientific. These results also add materially to the accumulating knowledge of the intravenous administration of remedies, and the preparation of intravenous solutions.

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In rectal constipation (dyschezia) the feces may reach the pelvic colon in normal time, but the rectum is evacuated with much difficulty. The feces, by reremaining too long in this region, have all the water abstracted, become hard and dry, and painful defecation ensues with resulting complications. Nujol keeps the fecal mass in this region soft and prevents complete water abstraction, thereby acting prophylactically against rectal diseases.

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Many progressive manufacturers and merchants say that the cut price bait is losing its attraction. They are paying less attention to this method of getting more business, and more attention to the idea of quality merchandise service. They believe the results so far achieved justify the statement that their customers will be better served and their own profits enhanced by giving more attention to quality, and less to price. Real service is what counts. While many people will shop about for prices, the great majority are better satisfied with quality merchandise and good service at a fair price. This makes for confidence—the cornerstone of satisfaction. Mr. Charles Wesley Dunn, counsel for a number of large manufacturers in this country, has given this problem a great deal of thought. His conclusion is that we are now approaching the time when the real competition will be in merchandise and service rather than in price. As a nation, we have developed to the highest degree the science of **quantity** production. Now, with characteristic American progression, it is only natural that we are experiencing a very definite trend toward the development of **quality** production.

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and Electro-Therapist

Editorial and Business Offices
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FREDERICK P. GAY, M. D.,

Professor of Pathology, University of California Medical School, Berkeley, Calif.

"WHEN we come to consider the use of mixed vaccines, we find at once more valuable and more enthusiastic reports as regards their preventive value. A whole series of observers—Rosenow, Cadham, Eyre, and Low, Kraus and Kantor, Cary, and Minaker and Irvine—have apparently demonstrated a distinctly diminished incidence of influenza in the vaccinated as compared with the unvaccinated, and the particular writers to whom I have referred have for the most part carefully controlled their cases by a group of unvaccinated individuals." * * *

"Mixed vaccines have been used, not only preceding exposure to influenza, but also during the course of the disease in the hope of preventing its complications. There is a steadily growing body of information, some of it of apparently considerable critical value, that would seem to indicate that a mixed vaccine containing streptococcus and pneumococcus in addition to influenza bacilli will notably decrease the pneumonic complications of influenza." * * * * *

"Cary, and Roberts and Cary, have not only prevented the occurrence of pneumonia by the use of a mixed vaccine, but have actually produced a rapid cure of pneumonia during its course." * * * * *

* * *—Journal A. M. A., January 22, 1921.

This statement by Dr. Gay was "prepared under the auspices of the Council on Pharmacy and Chemistry of the American Medical Association," and "is presented to the profession to serve as a guide in the use of vaccines."—Journal A. M. A., January 1, 1921, page 33.

A mixed influenza vaccine (Sherman's 38) has been extensively used in the prevention and treatment of colds' influenza and pneumonia. This vaccine is non-toxic and can be administered in one c. c. doses every twelve hours in the pneumonias with very gratifying results. One of the most striking features is the rapid defervescence which follows the injection within 24 hours where the vaccine is given early in the disease. The mortality where this vaccine is used, is reported to be as low as five per cent.

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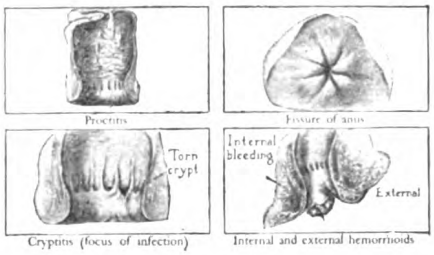
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Sodium sulphate.	138.76	2379.30
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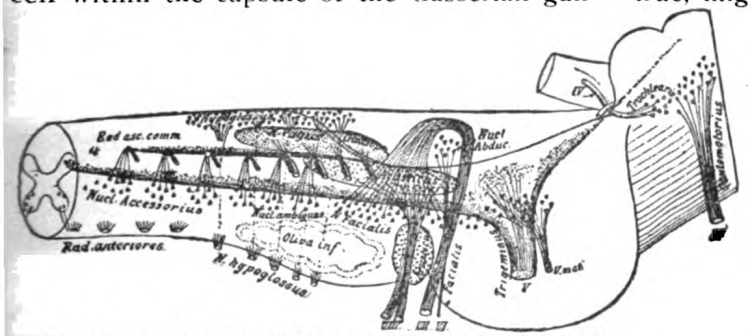
Vol. XLII DECEMBER, 1923 No. 12

Original Contributions
(EXCLUSIVELY FOR THE MEDICAL HERALD)

MEDICAL TREATMENT OF TIC DOULOUREUX

By S. GROVER BURNETT, A. M., M. D.,
Kansas City, Mo.

CHARACTER of ganglion cell pain:—Paroxysmal, intense, darting, cutting pain in the extremities means disease in the cell in the spinal cord posterior root ganglion. The agonizing, cutting, spasmodic pain, called gastric crises, means the lesion is in the cell of the spinal posterior root ganglion. That hellish, flashing, cutting pain of intolerable intensity in the distribution of the Trigeminal Nerve means the pathology extends to the cell within the capsule of the Gasserian ganglion, the cerebral counterpart of the spinal posterior root ganglion. Dana says this latter pain "is a kind of Trigeminal angina." The sooner we grasp the fact that every sensory nerve has its equivalent root ganglion, at some anatomical division between the peripheral receiving endorgan and its cerebral center for memory of pain, the quicker we will put a finger directly on the nerve root ganglion and positively state that the foregoing described pain is a result of a moleculer lesion of the cell within the ganglion. Why look for such a pain in nerve trunks, the coverings and sheaths and in arterial and muscular degenerations? It never originates in such structures but may be manifest in any anatomical structure if a ganglion cell lesion flashes its death kick over the neuron to such a structure. Have we ever recognized that the pain of angia pectoris has all the ear marks of a root ganglion pain? That it comes with intensity, sudden anguish, vascular and cardiac muscular spasm and death? The clinical picture is identical, these vital organs are disfunctioned for a sufficient time to suspend life by the paralyzing knock of the lightning-like death kick of the disintegrating cell, shunted over the axon to the nerve endings in the muscular structure. The old threadbare story of sclerosis, endarteritic changes and thromboses of the coronary arteries, if actually true, might cause sudden death but the ganglion cell pain shock would be absent, therefore not clinically true angina, so-called.



Cut No. 1, showing origin of Cranial Nerves and extent of origin of Trigeminal Nerve (Edinger, quoted by Dana, p. 161).

The Trigeminal Anatomy

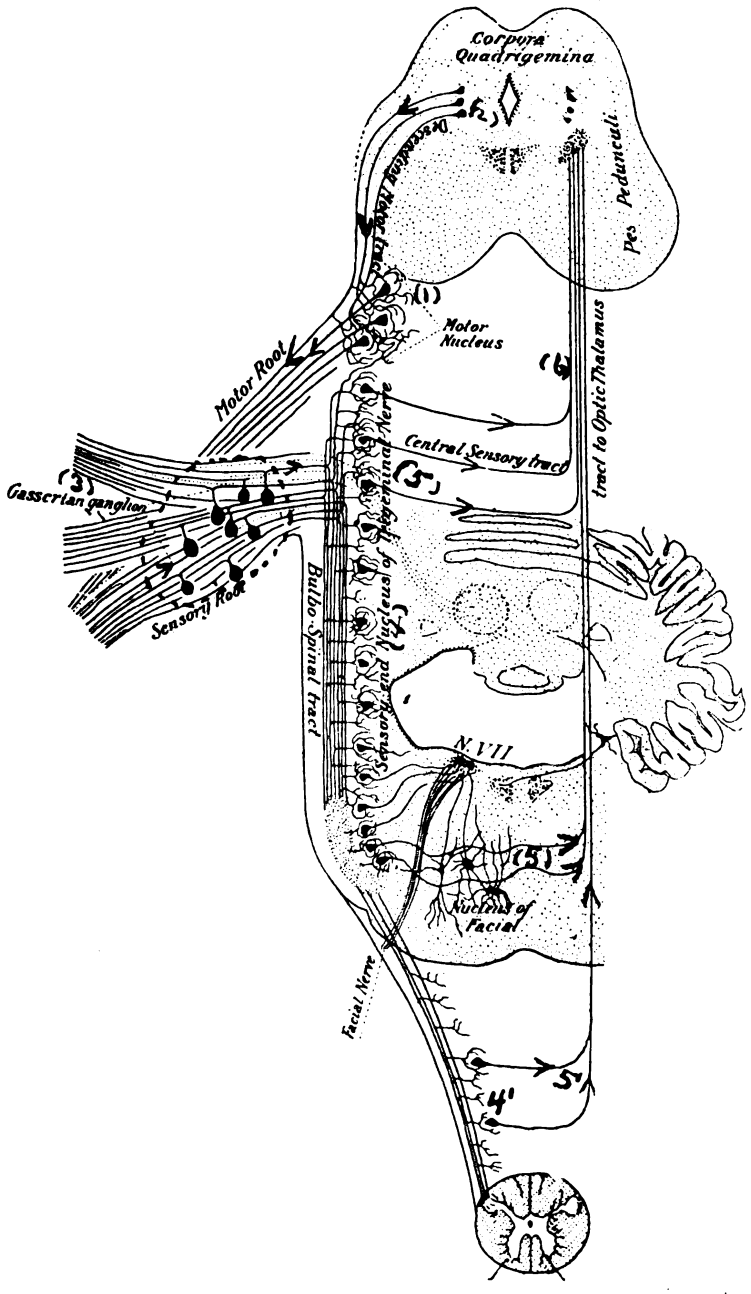
The least minutely well known, the most "extensively distributed," the most delicately sensitive, the most beautifying to vamping natures, the most devilish in disease, the most mutilated and tortured in therapeutic procedures, of all nerves the Trigeminus is IT. For this reason intelligent anatomical familiarity is essential to any attempt to tame any of its wild and unruly manifestations.

Anatomy:—The sensory roots of the 3rd, 4th, 6th, 7th and 12th nerves have all been evolutionally compounded into the 5th nerve, with a nucleus occupying the full length of the pons and medulla, in "co-extension with the origin of all the other cranial nerves." (See No. 1.)

*Read before the Medical Society of Missouri Valley, Omaha, Nebr., September 21, 1923.

It's a mixed nerve with a central motor nucleus, deep in the substance of the pons, (1, cut No. 2) and an accessory nucleus, a long tract of gray matter, the descending root, in the upper and dorsal part of the pons, descending and paralleling the Sylvian aqueduct. (2, Cut 2.)

The sensory fibers arise from the unipolar cells in the capsule of the Gasserion ganglion (3, cut 2) as do the spinal cord ganglion fibers in their respective locations. The axon, emerging from the cell, is said to split into a peripheral going and a brainward going axon. The only clear explanation is that the axon from the cell to the periphery acts like a multipolar brain cell dendrite, gathering all ingoing impressions from its facial periphery, delivers the impressions to the cell interior to be taken up by the central going axon and delivered to the brain. The brainward going axons pass into the pons, some fibers ascending, some descending to end in End Brushes around cells grouped to form the Sensory End-Nucleus of the Trigeminal Nerve, (4, cut 2). Some of these fibers pass down the pons and medulla as far as the cervical spinal cord, end-brushing around cells (4) giving off new axons which decussate (5) to pass up in the tract to the Optic Thalmus (6). These trigeminal fibers are called the "Ascending Root of the Trigeminus," but they are only ascending after they have end-brushed and new axons are given off (5) (5) (4) (5) to decussate and ascend as stated (6), to finally end-brush in the Optic Thalmus and then, by new neurons, the tract reaches its destination in the cerebral cortex in the lower end of the post-central convolution.



Cut No. 2. Schematic origin of Trigeminal Nerve and Root Ganglion (Modified from Edinger).

The trigeminus is supposed to carry trophic, vasomotor and secretory fibers. "The vasomotor and secretory fibers come to it, in part, from the medulla and cervical spinal cord via the sympathetic" (Dana). The many complete extirpations of the Gasserian ganglion without trophic changes in the cornea or conjunctive dispute the presence of trophic fibers in the trigeminus.

Pathology:—For a third of a century I have watched the pathology underlying Tic Douloureux accumulate. Under the pathologic, anatomic and microscopic laboratory tutorage of Professor Dana, the days when the neurologic fundamentals were being worked out, being elaborated, to eventuate in the most profoundly scientific text book on Neurology in the English language, some ideas were formulated and one idea was that the very character of the pain of the neuralgia, called tic-douloureux, was not the pain of a neuralgia.

But, instead, in my interpretation, the pain was that sudden, flashing, knife-like pain of an irritative character or the death cry of a nerve cell within the trigeminal ganglion; that a molecular or chemic lesion of nutrition was being established in the cell within the ganglion body, meaning, ultimately, a true degenerative process, possibly as true as the ganglion cell degeneration in tabes but of a less intensive destruction of cell life, maintaining neuronic function over years of time amid pain storms.

Today much pathology is of record but it seems astounding how few general physicians are able to grasp the facts sufficiently to intelligently dictate the care of a case. Again we wonder at many capable pathologists who are unwilling to commit themselves on their own findings after having made seemingly clear and fascinating reports.

Dana, Putnam and Thoma report marked arterial thickening in both the nerves and the ganglion. These authors, with Spiller, Krause and Mearse added, all found extensive peripheral nerve changes; swelling of the axone, myelin sheath changes, accumulation of myeline droplets, round cell infiltration, increase of connective tissue and endarteritis obliterans. These changes were those of a parenchymatous neuritis.

Cushings case, three years standing, showed obliterating endarteritis with swelled axones but there were thickened, palpable arteries, generally, with high blood pressure. Probably a high pressure case with arteriosclerosis.

Spiller again examined two ganglia removed by Cushing and seven removed by Keen. All nine ganglia showed thick vessels, some with swelled axones and medullary sheaths. His cell findings are of interest, namely, around the cell periphery was "intense degeneration" and within the "ganglion substance" he found marked "concentric deposits." One ganglion showed "intense" degeneration of the cells and one showed "complete vascular occlusion." Rose reported similar findings.

S. I. Schwab reports the microscopical study of six trigeminal ganglia. He found intracellular changes and interstitial sclerosis but no marked vascular changes in four of the ganglia.

Barker scarcely found a normal cell in one of two ganglia studied and only slight thickening of the vessels.

In eight ganglia examined by Krause he found marked cell degeneration and sclerosis in seven and in one the degeneration included the sensory nerve root.

Of fifteen ganglia removed by Cushing. Frederick Tice did not find a single normal ganglion; marked and varying degrees of cell disintegeration were present: cells were retracted from their capsular membranes and were irregular in contour, containing much pigment deposit, and were chromatolytic and vacuolated with concentric deposits throughout the intraganglionic structures. The intraganglionic vessels were not much thickened but the vessels in the nerve trunk were constantly thickened; sclerosis was present in the tunica intima and media but was especially marked in the distal nerve trunk.

In "A Surgeon's Impression of Trigeminal Neuralgia in three hundred and two cases," by C. H. Frazier, he agrees with a statement credited to Spiller that the **"lesion is essentially a sclerotic process of the ganglion proper.** And numerous able authorities contend that **vascular disease is a sequel to long continued repeated pain paroxysms, intensified vascular spasm,** finally causing thickening of the tunica intima, tunica media, round cell infiltratiion and arteritic obliterans, adding starvation to the peripheral neurone: that many ganglia have shown remarkable disintegration with little or no vascular disease. This is shown in Cushing's fifteen ganglia studied by Tice in which not one normal was found and every degree of cell disintegration was present, yet not much thickening of intraganglionic vessels was found though the nerve trunk vessels were constantly thickened.

Dana, a pioneer in neurologic pathology, says "it's a degenerative disease, due to irritative and atrophic processes in the nerve and its ganglion;" that a neuritis has been found but the nerve was not much changed; that an obliterating endartertis **deprives the nerve trunk of its blood supply;** that the ganglion degenerations sometimes found are thought to be secondary as nerve division stops the pain for one or two years; that the most satisfactory pathologic viewpoint is that the neuralgia is due to an obliterating arteritis causing defective nerve nutrition with vascular spasms.

As is seen in the foregoing pathologic findings there are two authorative conclusions, namely: First, "the lesion is essentially a sclerotic process of the ganglion," with secondary minor vessel thickening in the ganglion but with constant vessel thickening in the nerve trunk; second, "it is a degenerative disease due to irritative and atrophic processes in the nerve and its ganglion" (should we say in the **ganglion** and its **nerve?**), being secondary to an endarteritis obliterans, causing a molecular lesion of nutrition by cutting off the nerve and ganglion blood supply and starving them to death.

Treatment: It should be clearly understood that trigeminal neuralgias under forty years of age are not necessarily tic-douloureux. It is not a disease of youth but a disease where the individual has passed middle age,

into the evolutional epoch, into senility, into the stage of life where the initial tissue degeneracy, and especially vascular degenerac,y is the expectancy. Varying trigeminal types of migrane and ordinary trigeminal neuralgias are not tic-douloureux. The latter is an organic disease, in some degree, of the gasserian ganglion and its nerve trunks, with symptoms of its own, as recited in the first of this paper.

Therefore, the pathology points to methods of treatment that are strictly medicinal, or strictly surgical. If it were possible, in the beginning, to differentiate the predominating vascular degeneracy from the ganglion cell degeneracy as the casual type it would determine rather definitely which of the procedures to adopt.

For many years I have medicinally treated these cases after a method much like that used while enjoying Dr. Dana's tutorage; a method modified, perhaps intensified, or added to as clinical variations pointed the way but, fundamentally, much the same. Of late years the vascular system is carefully studied first thing for if the vascular disease is a factor in causing molecular degeneracy of the ganglion cell and its axon why not look elsewhere for vascular defects. With no peripheral vessel changes apparent and no renal findings I often found an unsuspected hypertension. This dictated the first steps in the treatment, namely: high frequency auto-condensation treatment till fixed pressures were obtained and then daily Leydenized Morton Wave Current (Medical Herald, June, 1923) treatments of ten to fourteen hundred thousand volts, less amperage, for about two months. Often the auto-condensation gave marked relief before medication was instituted.

And diet is another factor in the treatment. The nitrogenous compounds, proteids, if you please, are all excluded from the diet (a la Dr. Grover), for a time and resumed again successively, till the offender is found and excluded. Also sodium chloride is excluded from all diet except bread and butter allowed. Migraines, essential Epilepsies and hypertensions should not keep the lymphatic spaces of the arteries and nerve and brain peri-cellular spaces surcharged with the overstimulation and irritating properties of salt, the one chemical constituent of these spaces.

Medication:—If there is a work on neurology that outlines a systematized treatment of tic-douloureux I have not seen it. All mention a string of drugs from vaso-motor dilators to quinine and a change of climate but not a word of technique. In an average case my outline is this: First perfect quietude in bed with blinds drawn and door locked if necessary to keep meddling visitors out and just a nurse to attend all wants quietly and no gossip. The average hospital with its noise, talk in the halls, the rolling of ambulance cots and the cries and groans of sick and surgical patients is no place for such patients. Second, to control pain, crystalline aconitia, Schieffelin's aconitine, in tablet form, or Abbot's pill aconitine, grains 1/200 every two hours day and night (unless patient sleeps) till the tongue and lips tingle and skin moistens. If these symptoms are pronounced or if there is a tendency to slight dizziness or "funny feeling" in the head, give the dose every three hours and later every four or five or six hours as the pain subsides; but **don't discontinue the dose** because of its systemic symptoms, but counteract them by lengthening time of dose and by: Third, nitrate of strychnine one grain to the ounce, beginning at the earliest part of the treatment with ten mimims **immediately before eating,** three times daily, increasing one mimim (like K. I. in Syphilis). If systemic symptoms show, **slightly,** stop increasing the dose but continue that dose for a few days, till strychnine symptoms subside, then go on increasing the dose, again, but keep within the patient's toleration for the drug. If the patient is irritable to strychnine, fifteen grains of sodium bromide, three or four times daily, at intervals, as needed, one hour before meals, will aid in continuing strychnine to large doses, one-sixth, one-fifth or one-fourth of a grain in extreme cases. If large doses are not **gradually** attained the result is failure. Large doses hurriedly attained will necessitate going back to the small dose to be increased again with time lost and less satisfactory results.

Following the foregoing intense medication give an iodide, easily assimilated. K. I. and S. I. tax the digestive function of these below-par people and depress the circulatory mechanism. Burnham's soluble Iodine is ideal, gradually increased from 3 to 10 or 15 drop doses, 3 or 4 i. d. And a tonic, Wyeth's Elix Glycero-Phosphate Co., one to two drachms just before meals, possibly with a little arsenic added. Three months' intensive observation is necessary for good results and for a year at intervals, directing the salt restricted diet, watching and combating the tendency to hypertension, giving the Leydenized Morton Wave current for one to two months, at intervals, for its vaso-motor rejuvenation, for its effect on metabolism and catabolism as no medicant can do.

If the physician can not systematize and intensively administer the small treatment details, or, if the patient obstreperously interrupts the routine, failure is his and the next best procedure and least dangerous is Abbe's operation, namely, a neurectomy, an evulsion,

the insertion of a rubber tissue on the floor of the skull, under the dura, for the second and third branches so the severed axones can not reunite. Otherwise neurectomics are largely temporizing.

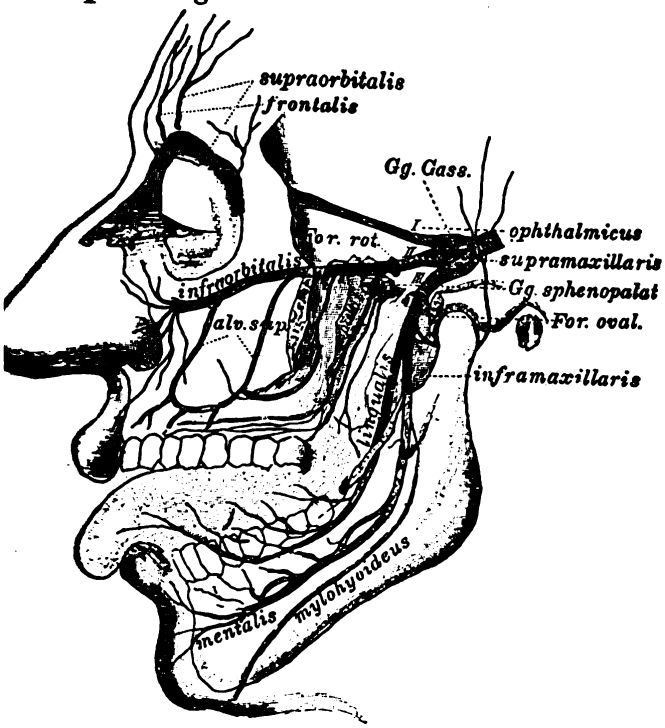


FIG. 43.—(*Esmarch and Kowalsig.*)

Fig. 43.—(Esmarch and Kowalzig.) From our beloved Binnies Operative Surgery. Showing Trigeminal Ganglion, its three divisions and their approach.

Alcohol Injections:—Figure 43 demonstrates the approach to the trigeminal branches. Give an alcohol injection in either branch and the nerve segment injected can no longer transmit hyper-impression from the intensely hyperaesthetic peripheral nerve endrogans to the ganglion cell, already the seat of a degenerative lesion of nutrition. The circuit for transmission of nerve messages is broken; nothing is done to repair or prevent ganglion cell degeneration; nothing is done to lessen vessel thickening and if an endarteritis obliterans is not present it will be in time; nothing is done to determine the presence of a hyper-tension or to combat it if present and when the destroyed axon is repaired in a year or so the gap in the circuit is closed, the same old lightning-like, anguish, hellish pain flashes, the death kicks of the dying ganglion cells are resumed, red hot. And this is true of any neurectomy that does not provide against reunion of the severed neuron.

SOUTHERN MEDICAL ASSOCIATION

At the recent meeting of the association in Washington, D. C., Dr. Charles L, Minor, Asheville, North Carolina, was elected president for the ensuing year. The next meeting will be held in New Orleans in the fall of 1924.

THE CAUSE OF HEART FAILURE IN 450 CASES

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THE method of classification used in the study of these cases is based on the assumption that heart failure cannot occur without an impairment of one or more of the properties of the heart muscle. The term "heart failure" as used here means an inefficiency of the myocardium to maintain a normal circulation of blood. Of five properties of the heart muscle, tonicity, rhythmicity, conductivity, contractility, and irritability, the ones most frequently impaired in heart failure are tonicity and rhythmicity. Some, in fact, most of the modern writers on heart disease, do not give rhythmicity as one of the properties of the heart muscle, yet it would seem to be one of the most important properties.

It is true that many of the heart irregularities do not concern us in diagnosing heart failure, but it is equally true that a normally functioning myocardium is dependent on the impulses of the heart's contraction being formed regularly and at about the rate of 72 per minute. These impulses are formed in a limited area of the myocardium, the so-called pace maker, where the cells are endowed with the property of forming beats regularly and within the range of normal rate. When impulses are not formed at the pace maker, or, after being formed, are not conducted normally over the bundle of His, then a disturbance of rhythm exists which may lead to heart failure and death. Therefore, the importance of considering rhythm as one of the properties of the heart muscle seems obvious.

The advantages of analyzing a case of heart disease, or rather heart failure, by the method here advocated should appeal especially to the general practitioner, by whom most of the cases of heart disease are seen and treated. The impairment of any property of the heart muscle gives fairly definite clinical symptoms and findings which can be quite accurately identified without graphic records in about 95% of cases. In fact, impairment of the property of tonicity resulting in dilatation of the heart, the commonest form of heart failure, must be recognized by clinical manifestations because, in this condition, neither the electrocardiograph nor the polygraph will give information of any value.

The 450 cases upon which this study is based include only the cases seen with some definite form of mycardial failure. Infectious conditions, such as acute or chronic endocarditis,

*Read before the Medical Society of Missouri Valley, Omaha, Nebr., September 21, 1923.

acute pericarditis, pericarditis with effusion, and valvular lesions, unless associated with disturbed function of the myocardium, are not included. Neither are the cases of the anginal type of heart disease if the symptoms are anginal only.

An attempt was made in every case to diagnose not only the functional disturbance of the myocardium, but also the pathological condition, if any, and the etiologic factor as indicated in the adjoining table.

Knowledge of the physiology of the myocardium shows why an impairment of any one of its properties should cause, as a rule, fairly definite clinical manifestations:

I. Tonicity

Tone is that property of the heart muscle that prevents complete relaxation during diastole. When tonicity is impaired, dilitation follows with the symptoms of disturbed cardiac function. Dilitation, that is, increase in size of any of the chambers of the heart from prolonged stretching due to increased intracardiac tension, as in valvular disease or hypertension, is frequently found without any heart symptoms whatever because tone remains intact. Corresponding to the degree of impairment of tone, dilitation occurs with resulting blood stasis which causes, first, cough and dyspnoea, followed by such objective symptoms as cyanosis, rales over the bases of the lungs, swelling of the feet, swelling and tenderness of the liver, and albuminuria. These findings were formerly considered signs of broken compensation, a term now obsolete. Blood stasis of cardiac origin cannot occur unless the property of toncity is impaired. Disturbance in function of one or more of the other properties of myocardium, such as rhythm or conductivity, may cause a serious form of heart failure, even death, but there will be no dropsy or other symptoms of blood stasis if the tone of the heart muscle does not fail.

The important features to be considered in the diagnosis of impaired tonicity or dilitation of the heart, the term that is commonly incorrectly applied to this condition, may be, for the sake of brevity, tabulated as follows:

1. **Dyspnoea.**—If the property of tonicity is impaired, there is always shortness of breath on exertion. If a patient can perform his usual activities, such as climbing one or two flights of stairs without getting "short winded," impairment of tonicity or cardiac dilitation can be excluded.

2. **Cough.**—An early symptom due to congestion of the lungs.

3. **Rales Over the Lung Bases.**—Crepitant rales on deep inspiration heard over the lower lobes of the lungs, due to passive congestion, is an early symptom. Pneumonia, the result of passive congestion, is a common cause of death in these cases.

4. **Signs of Blood Stasis.**—Cyanosis, dropsy, swelling of the liver and albuminuria are all dependent upon the degree of impaired tonicity.

5. **Pulse.**—Rate is usually moderately increased, but may be unchanged. The pulse is regular unless there is also some disturbances of rhythmicity. If there is impairment of tonicity only the pulse is regular because tone has nothing to do with the regularity of the heart's contraction. Therefore, graphic records are of little or no aid in recognizing this form of heart failure.

6. **Blood Pressure.**—As a rule no information of importance is obtained from blood pressure estimations. It usually remains unchanged; it may drop abruptly or it may even increase. The chief factor in blood pressure is the vasomotor tone, compared with which the force and contraction of the heart are minor factors.

7. **Size of the Heart.**—This is an unreliable sign and difficult to make out. Loss of tone may be present with high grade blood stasis and only slight increase in size of the heart, or the heart may be enormously hypertrophied and the tone perfectly normal.

8. **Heart Sounds.**—There is no characteristic alteration in the sounds of the heart. The loss of tone may be so great that the heart may be dilated to almost twice it's normal size and the heart sounds heard clear and distinct. On the other hand, all the functions of the heart may be normal and the heart sounds indistinct and muffled.

9. **Heart Murmurs.**—These are mentioned last because of least importance. It cannot be too strongly emphasized that a heart may be so dilated from loss of tone that a patient can scarcely breathe and yet careful auscultation fails to reveal any murmur. Relative stretching of the muscular ring surrounding the auriculo-ventricular orifices may cause loud systolic murmurs, which may disappear when the normal tone is restored.

Etiologic Factors in Impaired Tonicity

It can be readily seen in the table that the most important fact pertaining to the cause of this form of heart failure is usually some condition that increases the work of the heart. The cases diagnosed as myocardial degeneration (the term now used instead of myocarditis) are few compared with the ones of myocardial failure from overwork, due to such conditions as hypertension, valvular lesion, goiter, disease of the aorta, etc. Associated with the valvular lesion or some other condition that increased the work of the heart was not infrequently a history of heart strain. Occasionally serious impairment of the tone of the heart

muscle may occur in a perfectly normal individual, from over-exertion. The importance of restricting activities in patients in whom conditions exist that increase the work of the heart, is perfectly obvious. Patients are usually more concerned in how they can prolong their lives and live in comfort than they are in a split "T" or an inverted "R" in the electrocardiogram.

The most important fact concerning the etiologic factors is that the vast majority of these conditions, especially the valvular lesions from rheumatism or focal infection, syphilis of the aortic valve or of the aorta, toxic goiter, and some cases of hypertension in Bright's disease, are due to preventable causes.

Pathological Lesions

It is to be noted that the percentage of cases of aortic regurgitation is comparatively high, while there were relatively few of mitral regurgitation. It is a little doubtful if a leaking mitral valve, when not actively diseased as in rheumatic or septic endocarditis, ever causes heart failure in the adult. In this collection of cases no child under twelve years of age is included. The relatively high percentage of cases due to goiter and focal infection shows the importance of extra cardiac factors in heart failure.

II. Rhythmicity

In over one-third of our cases of heart failure the cause of the failure was a disturbance in rhythm. In all of these five or six forms of arrhythmia there are certain definite clinical findings so that better than 90% can be recognized without graphic records. The clinical features of the different forms of heart irregularities will not be discussed in detail. Anyone desirous of familiarizing himself wth the principles of arrhythma is referred to Thomas Lewis' little book on the "Clinical Disorders of the Heart Beat."

The commonest type of arrhythmia producing heart failure is auricular fibrillation. This being the only type of arrhythmia that is associated with a rapid, persistingly irregular pulse, scarcely any two beats of the same size or same distance apart, can be easily recognized in nearly all cases with the finger on the pulse for a minute or two. In fact, in half the cases the diagnosis can be made from inspection—the disorderly cardiac impulse and the irregular, flopping carotids.

This type of arrhythmia illustrates, in a very emphatic way, how a patient may have a serious form of heart disease from a disturbance of only one property of the heart muscle. In many of these cases there is no evidence whatever of heart trouble, except the rapid, irregular heart action. There is no dropsy, no swelling of the liver or other signs of blood stasis as long as the property of tonicity remains unimpaired. Sooner or later, as a result of over-work from the rapid, irregular contractions of the ventricle, the muscle becomes exhausted, tonicity impaired and then the findings described under the symptomatology of loss of tonicity develop. In fact, the object of therapy in cases of auricular fibrillation is to protect the tone of the heart muscle. This is done by lessening the rate with the continuous use of digitalis in the proper dosage. Paroxysmal tachycardia and auricular flutter (quite rare) are two other forms of arrhythmia that cause heart failure only by over-work from the rapid action.

Pathology.—The cardiac lesion associated with the arrhythmias are almost limited to mitral stenosis and the organic myocardial conditions ,such as degeneration from coronary disease, or from the effect of bacteria or the toxins on the heart muscle. It is not usual for the macroscopic and microscopic examinations of the heart muscles to reveal nothing abnormal in cases of death from auricular fibrillation or paroxysmal tachycardia.

Etiology.—It is quite significant that in most of the arrhythmias we have seen, the apparent cause has been extracardiac. This applies to all forms of heart irregularities. Much the commonest extracardiac factors are diseases of the thyroid gland and infected teeth. These two conditions seem to affect the heart in the same way. There is first an increase in irritability, manifested by extrasystoles and this increased irritability causes paroxysmal tachycardia, auricular fibrillation or auricular flutter.

Mitral stenosis is about the only valve lesion associated with fibrillation. In this condition the increased intra-auricular pressure causes increased irritability of the auricular musculature, resulting in auricular extrasystoles and later in auricular fibrillation.

III. Conductivity

This condition is known as heart block, another beautiful example of a serious form of heart disease from impairment of only one of the five properties of the heart muscle. It is rare and is found as the sole cause of heart failure in less than 4 per cent of cases. The chief feature is the slow, regular pulse, usually less than 40 when the block is complete. Incomplete block cannot be recognized in many cases without graphic records. Dropsy is always absent unless the tone is impaired.

IV. Contractility

This is the property of the heart muscle in virtue of which the cells become shorter during systole. Disturbance in function of this property is rare, but when it occurs it is quite serious. It is caused by the same factors that are associated with impaired tonicity, the chief one being overwork. The only evidence of

abnormality of this property is an alternating pulse which can be easily recognized with the blood pressure instrument from the fact that each alternate beat is 5 to 25 points less than the preceding one.

V. Irritability

This is the property of the heart muscle which enables it to respond to stimuli. It is termed excitability by some authors. Irritability is the name originally suggested by Gaskel & Engleman and, in the opinion of the writer, there is no logical reason for discarding this term.

This property of the heart muscle does not concern us, at least directly, in heart failure. However, increased irritability, manifested by frequent or occasional extrasystole, may be a warning highly important. The first sign of excessive use of tobacco, of digitalis intoxication, of early hyperthyroidism or of beginning heart failure in hypertension is not infrequently extrasystoles. Increased irritability is undoubtedly a factor in some of the serious disturbances of rhythm, such as auricular fibrillation, auricular flutter and paroxysmal tachycardia, and the clinical relationship of these forms of arrhythmia with extrasystoles, or premature contractures, is quite apparent.

Causes of Heart Failure in 450 Cases

I. IMPAIRED TONICITY.....265 CASES

A. Valvular lesions.....148	1. Aortic regurgitation...113	
	2. Mitral stenosis 29	
	3. Mitral regurgitation... 4	
	4. Congenital 2	
B. Hypertension 48	Nephritic 30	
	Essential 18	
C. Aneurysm 24		
D. Dilated Aorta 13		
E. Myocardial Degeneration 12		
F. Toxic Goiter..... 8		
G. Influenza 4		
H. Adhesive Pericarditis. 3		
I. Cause Unknown 3		
J. Secondary Anaemia.... 1		
K. Beri beri..... 1		

II. DISTURBANCES OF RHYTHM.....170 CASES

A. Auricular Fibrillation.152	1. Mitral stenosis 49	
	2. No obvious cause..... 34	
	3. Toxic Goiter 31	
	4. Dental infection..... 16	
	5. Hypertension 15	
	6. Aortic regurgitat. ... 3	
	7. Pneumonia 3	
	8. Pernicious anaemia .. 1	
B. Paroxysmal Tachycardia 14	1. Dental infection 4	
	2. Myocardial degener. ... 2	
	3. Aortic regurgitat. ... 2	
	4. Pericarditis 2	
	5. Post operative..... 2	
	6. Cause unknown 2	
C. Auricular Flutter 4	1. Cause unknown 2	
	2. Influenza. 1	
	3. Tonsillitis. 1	

III. DEPRESSION OF CONTRACTILITY.....6 CASES

A. Hypertension	4
B. Toxic Goiter	1
C. Coronary disease	1

IV. LESSENED CONDUCTIVITY.....9 CASES

A. Syphilis	7
B. Cause unknown	2

THE DIAGNOSIS OF EARLY PULMONARY TUBERCULOSIS

By JOHN MILLS MAYHEW, A. M., M. D.,
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THIRTY years ago the diagnosis of incipient tuberculosis of the lungs presented but few difficulties. Fifteen years ago some obstacles arose and earlier methods became obsolete. Ten years passed with comparatively few problems unsolved and with the classification of incipient, advanced and chronic tuberculosis maintaining its course. The advent of our nation into the great war served to increase the problem many fold. Instructions to examiners on various boards only helped to muddle and confuse the issue, each new document often contradicting the former ones; the result being that many men were sent to the Camps for duty who should have been kept home and vice versa.

The effect of this confusion in method was inevitable inasmuch as, aside from a few eminent clinicians, no one had definitely announced a classification of subjective and objective symptoms necessary for the diagnosis of early tuberculosis.

Those of us who were permitted to serve in Base Hospitals of our army and the special Tuberculosis Sanitoria for soldiers, were called upon to pass accurately on the tuberculous or non-tuberculous condition of disability of many thousands of soldiers. Since the war, following the discharge of the army, we are still examining soldiers and passing on their tuberculous or non-tuberculous pulmonary disabilities, and on the activity or inactivity of tuberculosis lesions, when found.

I quote the following from an absurd and confusing order received from the U. S. Veterans' Bureau, Washington, D. C. This order is marked Medical No. 1644, is dated November 8, 1922, and is over the signature of the Assistant Director. The subject of the order is:

"Schema for the Classification of (tuberculous) patients on Examination."

Lesion—MINIMAL (Incipient). Slight lesion limited to small part of one or both lungs. No serious tuberculous complications.

Symptoms—A (Slight or none). Slight or no constitutional symptoms including particularly gastric or intestinal disturbance or rapid loss of weight; slight or no elevation of temperature or acceleration of pulse at any time during the twenty-four hours. Expectoration usualy small in amount or absent. Tubercle bacilli may be present or absent.

*Read before the Medical Society of Missouri Valley, Omaha, Nebr., September 21, 1923.

On page 3 of this order is the following:

"It should be made clear that roentgen findings may be positive where physical signs are negative or doubtful or, less frequently, that definite tuberculosis may exist without demonstrable roentenographic change."

On page 4 of the same order the following occurs:

"Slight Lesion—(a) Physical Signs—Possibly slight depression above or below the clavicle, lessened movement of the chest, narrowing of the isthmus of apical resonance or restricted diaphragmatic excursions; slight or no impairment of resonance; slight or no change in quality or intensity of breath sounds, with or without some change in the rhythm (i. e., prolonged expiration); vocal resonance possibly slightly increased; rales present, absent or transitory. If sputum contains tubercle bacilli, any of these."

E. Rist states: "In a tuberculous clearing hospital at Compeigne, out of 192 men sent in with a diagnosis of lung tuberculosis he found only 27.5 per cent tuberculous."

It is most important for the social fabric of our nation that we throw out all confusing, inadequate, obsolete and unproven symptomatology, classifications and methods. Give a soldier, past, present or future, a diagnosis of incipient pulmonary tuberculosis, he becomes in most cases a government parasite, a 'loafer on the job," a man who feels that "society owes him reparation for the awful thing that has befallen him.'"

In civil life the social and economic aspect is as great. Given a diagnosis of positive incipient tuberculosis, a man changes at once, the psychology of his life reverses, his economic status is lowered, his morale is broken and his social position in the world is partially or wholly destroyed.

Many, by a supreme effort, "come back;" the majority do not.

Where Should the Responsibility For Error Be Placed?

The Radiograph is the worst offender of all. Scattered throughout the balmy climes of our country, resting in the multitudinous sanitoria, or pursuing vocational training at the expense of government tax payers are thousands and thousands of strong men, able to take their place in the world's activities. They are loafers because, as they tell you glibly, "there were some spots found in my lung when they took the X-Ray."

The laboratory has had its share in offense and defence in this diagnostic war. On the whole, with its leucopenias, Arenth's Blood Picture, animal inoculations with tuberculous blood, Petrof media, circulating acid fast bacilli (contaminations?) it has added to the confusion.

The careful clinician has been the safety valve on the whole and on him must we rely for most of our definite principles in the diagnosis of early pulmonary tuberculosis.

Throwing aside all irrelevant diagnostic points, the remaining definite symptoms in sequence of importance, should be:

Subjective. Definite history of haemoptysis, (if more than once, the more positive).

Pleurisy ("pain in the chest") especially with effusion.

Continuous or intermittent seasons of cough, (productive or non-productive).

Night Sweats.

Loss of weight and strength.

Objective. Sputum, gastric contents or feces positive for the tubercle bacillus.

Persistent coarse rales in one or both apices, (exclusively unless accompanied by positive sputum, gastric contents or feces).

Increase in temperature or pulse (or both).

To these may be added the complement fixation test. According to various observers this is negative in from 10 to 30 per cent, in cases having the tubercle bacillus present in the sputum.

Discussion of Positive Signs. The laboratory furnishes the greatest weight of evidence, viz., presence of the tubercle bacillus in sputum, gastric contents or feces. Under the antiformin method of concentration the organism can be found in practically every case of early tuberculosis. Fishberg analyzing many hundred patients finds the sputum positive in 90 to 95 per cent of early cases. **The only positive sign of tuberculosis** is the discovery of the presence of the tubercle bacillus.

Complement Fixation. The Complement fixation test for activity must be utilized to the extent of its value.

H. O. Von Wedel* performed 6,128 fixation tests on 1,207 sera from 1,000 patients. His conclusions point to the fact that it is not a 100 per cent test for the diagnosis of tuberculosis since a considerable number of sera from both early and advanced cases contain insufficient anti bodies to fix complement. "A positive reaction repeated twice seems to prove that the patient has an active tuberculosis." A negative result has no value.

Punch* and Gosse* after a series of fixation tests conclude that "it can be definitely stated that the test is positive before the tubercle bacillus can be demonsrated in the sputum."

*Jl. Imunology, March, 1920.
*British Medical Journal, October 21, 1922.
*Lancet (2-617), 1920.
*British Medical Journal, July 15, 1922.
*British Medical Journal, April 1, 1922.

These same workers collaborating* discuss complement fixation test in the exclusion of pulmonary tuberculosis. Their conclusion is in favor of its accuracy and value.

The test must be used with extraordinary intelligence.

All other laboratory tests than these are valueless.

History of Haemoptysis. Maurice Fishberg* complains of bias in favor of a diagnosis of tuberculosis whenever haemoptysis is mentioned, stating that tuberculosis "has been suspected in every case of cough, blood spitting, emaciation, etc," and "that there are many causes of mild fever, cough, emaciation, haemoptysis, singly or collectively, and pulmonary tuberculosis is but one of these."

We are willing to accept this verdict in full with the exception of haemoptysis. We are further willing to grant that under present methods, there are many hundred other symptoms that lead one to "suspect tuberculosis." It is this **suspicion** we must avoid in order to return a verdict consistent with the facts.

Lawrason Brown* from a study of statistics at the Trudeau Sanitarium places his greatest confidence in the history of two conditions, viz., the occurrence of haemoptysis and of pleurisy.

In our own experience a history of haemoptysis was present in 612 out of 1,000 consecutive proven cases.

Persistent Characteristics Rales in One or Both Apices. The occasional apical rale or persistent base rales can be disregarded (except in cases with positive bacillus tuberculosis findings.) To be characteristic the rales must be constant, must be loud (characteristic "click") and must be limited to the apices in distribution. This finding ranks high in diagnostic import and many observers place it next to positive sputum in value.

The Value of the X-Ray in Diagnosis. Dumas and Corone examined 2,000 recruits for pulmonary tuberculosis. None were radiographed, the fleuroscope alone being utilized. They were able to conclude that "in their opinion in cases not confirmed by the laboratory but in which the stethoscopic signs are clear it **may confirm the diagnosis.** In doubtful cases it may furnish **great probabilities.**" These observations can be confirmed in any hospital. After viewing many hundred cases through the radioscope and having examined the radiographs of their chests, I am of the opinion that the X-Ray from the standpoint of **positive diagnosis** cannot confirm or deny the presence of early tuberculosis pulmonalis, or the activity or inactivity of any tuberculous lesion of the lungs. Hence when its value is questioned in relation to a positive determination one can readily answer "it has none." (This does not include childhood tuberculosis, where it may suggest possible lesion.)

In relation to this disease it maintains a wide sphere of usefulness, into which it is not the province of this paper to go. I would especially commend it for revealing pulmonary lesions other than those of tuberculosis that are responsible for abnormal physical findings, haemoptysis and pleuritic disturbances particularly.

Conclusions

Early Pulmonary Tuberculosis **must be proven** according to fixed scientific principles. The mental bias and the nomenclature must be clarified of such terms as "suggestive of" "suspected," or "probably" tuberculosis pulmonalis.

Carelessness in observation of these fixed rules leads to moral and social deterioration of the patient. It must be avoided.

No reliance can be placed on the X-Ray for positive findings.

The diagnosis when made must read, "tuberculosis pulmonalis, chronic, active." "Negative for tuberculosis" or at least "not proved."

904 Security Mutual Life Building.

*Medical Record—January 17, 1920.
*American Journal Med. Sci., Sept., 1920.
*Lyon Med. January 20, 1920.

THE MODERN TUBERCULAR HOSPITAL

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THERE is, perhaps, no field in modern medicine in which greater strides have been made during the last few years than in the treatment and care of tubercular patients. This will, of course, include the conducting of hospitals in which they are cared for.

When one stops to think of some of the changes that have been brought about, not by chance by any means, but by earnest, persistent study and watchfulness, they cannot help but have a feeling of pride in the attainments of the men and women who have been devoting themselves to this great work. It seems but as yesterday when we thought of tuberculosis as the greatest scourge with which our country was infected and that as we then looked at it the outlook was well nigh hopeless.

But the light of the dawn of a better day appeared and now we are looking at the future of this disease, terrible as it is, with hope, provided the patient comes into the hands of the physician or institution before the disease has made such an inroad upon his

physical being as may have weakened him and brought him to a condition where cure is impossible.

When we think of the advice that was given to the known tubercular patient, so short a time ago, that it seems but yesterday, that he must, no matter whether suffering with a fever as a result of his toxemia or not, take a certain amount of exercise each day; coming back from his exercise as he often did almost exhausted, can we wonder at the lack of results secured then? But when we have an opportunity to follow, as many of us are having an opportunity to do, who are in the U. S. Veterans' Service, the wonderful results that are coming to those patients, who, coming to the tubercular hospitals early, and who are co-operative and anxious to get well, and so do everything asked of them to assist in bringing these results about, we have every reason to take new courage and to hold out to the tubercular patient of today more hope than we have ever been able to extend before.

It seems as though the first, and possibly the greatest question, that comes up for the tubercular patient to answer is, where should I be to receive the best results from treatment for this disease? There is but one answer to this question and that answer is, in an institution built and equipped for the treatment of this particular disease. Until very recently it was thought that patients should, without exception, be sent to the mountains, or at least to some place where the air was light and dry and the weather not sudden changes common to a large portion not sudden changes common to a large share of our country. Today this is all changed and we are telling our patients that where there is a suitable institution near their home that is the place, generally speaking, for them to go to; of course there are exceptions to this, but it will stand as a general rule.

With this in mind many of our older states are providing state institutions for care of tubercular patients; they make a minimum charge for their care so as not to make them feel they are upon charity, for those who are able to pay, and for those who can not they provide institutions purely charitable. Every effort is made by the state authorities to get people to understand that if anything is to be done for these poor sufferers it must be done early. This is the keynote to the whole situation; as stated before, if these patients can be brought into a tubercular hospital or sanitorium early, much can be promised them; if late, very little.

But the question is frequently asked, why take these people away from their homes and shut them up in a hospital? There are very many reasons to be given in answer to this:

First, in the ordinary home there are not suitable arrangements for caring for a patient of this character; the ordinary duties of the home must go on; and, if perchance the patient be the father, it will be practically an impossibility to keep from him all the many details of the home which are of interest to him and which will to a greater or less extent cause him worry; a condition which it is very necessary shall be avoided. Then in the great majority of homes there are children; it is impossible, under these conditions, in the majority of homes to provide a rest period for the patients sufficiently quiet with children in the home, so it will accomplish what is desired; that is, complete and thorough rest and relaxation for the patient. Too much importance cannot be placed upon this one thing if we hope to secure good results for our patient. Then, too, we must keep ever in mind that, during the period of childhood, we have our greatest danger from acquiring the disease by contact; and where is there a home where there are children below the age of 12 years with the father sick who can be kept entirely away from the sick room?

Second, the tubercular patient requires special care and nursing which cannot well be given in the home and especially in the home of moderate circumstances, for it means that there must be a trained nurse in constant attendance, and the expense of this becomes prohibitive in a long drawn out case and with people of moderate means.

These two reasons should be sufficient to show that the place for every tubercular patient is in an institution conducted and equipped for the care of tubercular patients alone. This was seen early by the United States Veterans' Bureau and they have spent a very large amount of money to bring this condition about, and I feel sure that if the question was asked them as to whether or not they felt that it had paid to build the hospitals as they have done for the care of tubercular patients alone, when many of them, if not all, might have been cared for in general hospitals, they would say at once that every dollar they had spent for this purpose had been well spent.

The reasons for the need of a modern tubercular hospital have been rather lengthy as portrayed here, but they are needed; unfortunateiy, even many of the medical profession of today do not fully recognize these needs; if they did and would urge their patients upon their first suspicion of tuberculosis to enter an institution where they could

be specially treated and cured, we might expect much better results than we are seeing even now.

Now, let us consider what the modern tubercular hospital should be like.

Location—Wherever it is possible a hospital of this kind should be located upon a high tract of land; there are many reasons for this, chief among them might be mentioned the feeling that patients have and frequently express that they can breathe better; the writer has frequently noted when leaving the station where he is now on duty, and where the hospital is on a high elevation, that as he leaves and goes down into the valley there is an apparent dampness and heaviness of the air which seems to make it harder to get a good deep breath and fill the lungs full; then, morning after morning, as one stands on the porch of this hospital, he looks to the south and in the low land there may be seen a heavy pall of fog, while up where the hospital is located the air is clear and perhaps the sun is shining.

Then, secondly, the patients never tire of the view which may be seen from a hospital that is located upon high ground; it so happens that the two preceding stations, as well as this one, have all been remarkable for the splendid view which extended for miles on miles in practically every direction from the hospital, about which the patients never tired of telling their friends. This is of great interest to them and helps very much in keeping them contented.

Construction—It hardly seems necessary to speak of the matter of the construction of the modern tubercular hospital, for it has become such a generally recognized fact that special plans and architecture are absolutely necessary for a hospital of this character; the old days of the large wards where perhaps thirty, forty or fifty patients may be cared for in the one room are gone and let us hope gone forever. In their place has come the small rooms where one, two or four patients may be cared for and which are so generally preferred by the patients; this, of course, makes it possible to group patients in small groups and of those who may be more or less congenial, and so we shall be helping along again in making them more happy and contented, which needs ever to be kept in mind. Then there is the added advantage of being able to segregate all seriously ill patients, and when they are approaching the end, of placing them in a comfortable room alone, where, when they pass out, the depressing effect upon their friends may be avoided.

Sufficient light and ventillation are, of course, prime factors in the modern tubercular hospital and the new construction has given all the attention necessary to these two important factors. Large sun porches are to be found now in all the new buildings, which make it possible for all the patients to have every bit of sunshine that is necessary and good for them.

Equipment—Littled need be said about this further than that it is absolutely necessary that much attention be paid to the kitchen and mess hall. Too much cannot be said about the necessity for sufficient room and light in both kitchen and mess hall. Generally speaking, every tubercular patient entering a hospital or sanitorium is far below his average physical condition and one great essential in starting him back to his former condition is good food well served. Good food cannot be prepared in a place which it is not possible to keep scrupously clean and where those who are employed to prepare the food do not have the advantage of sufficient room in which to work; good light, excellent drainage and ventillation and who are not sufficiently trained to recognize the importance of keeping everything perfectly clean. Frequent inspection of the kitchen and all employed in it to see that they are clean personally, that their clothing is also clean and that they are free from any form of disease are essentials to this end.

It is strange what a large number of tubercular patients are found to have gastric disturbances, many of them severe and which drag them down continually; this condition calls for a special dietitian and diet kitchen. It might not be out of place to say that in a hospital of about 200 patients there were nearly 10 per cent who were suffering with various forms of gastric disturbances which should have called for a special dietitian whose sole duty would be to find out and furnish to these patients food which they could digest and assimilate and which would provide the nourishment they so sadly needed. This should be an essential part in the furnishing and equipping of every modern hospital for the care of tubercular patients.

Lastly, the entire personnel, both physicians and nurses, should be specially trained for the care of these patients. Not the least of the duties of the attending physician is to inspire and maintain confidence in himself on the part of his patient, so that when he tells him anything he will believe it, whether it is true or not. It is just such confidence as this that brings a relation between patient and physician that must bring the very best results. What is said of the physician is equally true of the nurse.

Discipline is absolutely essential to the

successful conducting of any institution for the care of the sick, but more so in a tubercular hospital than in any other. What avail is it to have a quiet rest hour if the patients do not observe it absolutely. Many, of course, will complain that the physician in charge is "hard boiled" and all that, but when, as has been said before, the physician gains the complete confidence of his patient there will be no difficulty about the question of discipline, and every patient will have but one desire and that is to do as his physician directs, because he has confidence that in so doing he will soon be on the road to complete recovery.

There are so many great things that enter into the detail of conducting a modern hospital, which it is not necessary to mention here, for they are of interest only to those who are in the service of such an institution, but these general observations as to the necessity for and results that may be accomplished in such an institution should be of the greatest interest to everyone, layman and physician alike, and it is only as we are able to preach this doctrine that we shall see the results attending the care and control of this dread disease grow steadily better in the future as they have been improving during the past few years.

A PARTIAL INDEX OF PHYSIOTHERAPEUTIC TREATMENT

By WILLIAM J. TINDALL, M. D.,
Jersey City, N. J.

IN order that the present satisfactory status of physiotherapy, and particularly electrotherapy, may be maintained, it is essential that all engaged in its application should keep certain salient facts prominent before their minds.

1. An accurate diagnosis should always be attempted.

2. Empiricism must result in disappointment, failure and the ultimate disparagement of what proves to be one of the most scientifically progressive branches of medicine.

3. A fairly large proportion of the cases which are sent to the physiotherapist have already shown themselves to be resistant to other forms of treatment. Some of these may respond to physiotherapeutic treatment; others, which may appear to be identical in their clinical features with the former group, will fail to ameliorate under physiotherapy. A therapeutic prognosis should therefore be exceedingly guarded, and speedy cures never promised.

4. Physiotherapeutic treatment should never be prescribed in a case where no improvement can result; and in cases which are incurable, but that are capable of relief, always tender a frank statement to the referring physician and to the patient of the benefit which may be reasonably expected from such treatment.

Under the heading of physiotherapy, I shall refer mainly, at this time to the most important branch,—electrotherapy. The changes which can be induced by electrical agents in the tissues of the human body are far more perfectly understood than was the case a few years ago; although in many instances considerable further investigation is necessary for their more complete elucidation.

Modern and scientific electrotherapy includes:

1. Galvanism. 2. Sinusoidal Currents. 3. High Frequency Currents. 4. Phototherapy. 5. Ultra Violet Therapy. 6. X-Ray. 7. Radium.

Galvanism has a polar effect according to whether the negative or positive pole is used. It is:

a. Excito-motor. b. Excito-sensory. c. Excito-secretory. d. Sclerolytic. e. Excito-nutritive. f. Sedative. g. Analgesic.

Sinusoidal Currents are rapid or slow. They induce, when slow, a physiologic reactivation of the muscles and are therefore extremely beneficial in atonic musculatures, whether voluntary or involuntary. Rapid sinusoidal currents dispel muscular spasticity and are therefore more valuable when hyperaction exists, rather than hypoaction.

High Frequency Currents include the Oudin, Tesla and D'Arsonval. These differ only in their relation of tension (or volts) and amount (or milliamperes), about as follows:

Current	Volts	Amperes
Oudin	Very high	Very low
Tesla	Medium	Medium
D'Arsonval	Very Low	Very high

They are used in fulguration, diathermy, auto-condensation, counter-irritation, electrocoagulation.

Phototherapy combines infra-red and light. It is infinitely superior to infra-red, as Sonne has shown:

"Based on a series of various facts concerning the specific absorption relations of the

light-rays (visible heat rays) during radiation to the human skin, the following theory is advanced: The curative effect of the universal light bath is due to the capacity of the luminous rays, during the light bath, to heat a very essential portion of the aggregate blood volume of the organism to a temperature possibly exceeding the highest ever measured fever temperature without causing the body temperature to rise in any appreciable degree.

"According to which the phototherapy will be able to produce the inciting effect of fever upon, for instance, the oxydation and the formation of anti-bodies without producing the usual harmful effects of fever upon the organism."

Phototherapy is no substitute for diathermy. It is useful whenever a superficially induced hyperemia is instrumental in bettering a condition.

Ultra Violet Energy, according to whether it is air-cooled or water-cooled, shows these dominant characteristics:

Ultra Violet Energy (Pacini)
(Mercury Arc)

Air Cooled Lamp:
1. Near Ultra Violet intensity.
2. Biologic (dominantly).
3. Chemically oxidizing.
4. Relatively penetrating.
5. Metabolic synergist.

Water Cooled Lamp:
Far Ultra Violet intensity.
Bactericidal (dominantly).
Chemically reducing.
Relatively superficial.
Metabolic depressor.

This elegant energy has won a deservingly high place in physiotherapy mainly through the remarkable labors of Pacini.

INDEX

Abscess. Water cooled ultra violet energy in superficial abscesses. In deep abscess, air cooled ultra violet for systemic uplift.

Acidity, gastric. (Hyperchlorhydria.) May be dispelled by the reflex action of Air Cooled ultra violet displayed over the epigastrium.

Acne. Air Cooled ultra violet systemically and locally. X-Radiation very good. Sometimes high frequency currents help.

Adenitis. Ultra violet practically interchangeable with X-Ray in affording good results, especially in tubercular adenitis. If sinuses have formed, ultra violet is best. Zinc or copper galvanic ionization is sometimes useful in sinuses.

Albuminuria. High frequency current helpful, depending upon underlying pathology; usually symptomatic relief only.

Alopecia, either total or areated. Violent counter-irritation promotes regrowth in about 40 per cent of the cases. Best accomplished with intense ultra violet rayings.

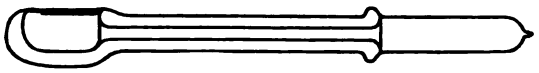
Amenorrhea. When a causative factor cannot be found, cases have benefitted much by regional air cooled ultra violet therapy. Diathermy helpful. Negative galvanism applied in the uterus of married women sufferers is good.

Anal fissure. Sometimes, though not frequently, yields to zinc ionization with galvanic current. Water cooled ultra violet seems helpful.

Anaphylaxis. All anaphylactic reactions do well under air cooled ultra violet energy applied systemically, owing to the increased calcium content of the blood thereby produced.

Anemia...Chlorotic; Air cooled ultra violet is splendid. Practically immediate and unfailing remedy. Secondary; depending upon pathology that is causative. In children, air cooled ultra violet is very excellent. Also in adults, though less so than in children. In adults, diathermy passed through multiple epiphyses has done good. When combined with air cooled ultra violet, the results are splendid. Pernicious; air cooled ultra violet is palliative.

(To be continued)

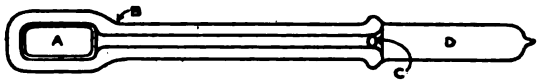


A NEW HIGH-FREQUENCY PROSTATIC ELECTRODE

By A. DAVID WILLMOTH, A. M., M. D.,
Louisville, Ky.

IN the treatment of a prostate the necessity for an electrode that would deliver the current to one area only, was recognized. My experience with the older electrodes was unsatisfactory and I had C. F. Mills & Co. of Kansas City to have made for me an insulated air-cooled glass electrode that would deliver the current to a circumscribed area which could be placed in contact with the prostate gland thereby insuring the current to be delivered only to the gland.

The advantages of this electrode are: It is inexpensive, fits any universal holder, simple in construction, air-cooled which prevents the danger of over heating and breaking, and permits the current to be concentrated on the tissue to be treated.



In the description of the cut, A, represents the flat surface on the outer wall of the electrode beneath which the Vacuum inner tube is moulded to make the current pass out at that point. B, is the outer wall and D, the part of the tube to be introduced into the handle or holder. C is the small round hole in the outer tube to permit the entrance of air for cooling and is on direct line with A, or the treatment surface. When the tube is introduced so that the larger part passes within the sphincter muscle, the electrode is then self retaining, and by rotating the tube so that the opening marked C, points to the patient's perineum the flat surface will then be in contact with the prostate and is ready for the current to be applied.

500 Shubert Bldg.

Physiotherapy and Radiology

BURTON B. GROVER, M.D.

APPLIED THERAPEUTICS

(Continued from November number)

Neuralgia and Neuritis.

Neuralgia and Neuritis is a subject of such magnitude that no attempt will be made further than to point out a few essentials in treatment.

It should be beneath our dignity to label a painful condition neuralgia or neuritis and then proceed to treat the label. The etiology of pain is wide enough to cover the symptomology of all diseases to which man is heir.

Pain is a mental interpretation of a harmful process occurring in the organism. The essential difference between neuralgia and neuritis lies in the fact that neuralgia has no pathology and therefore is a symptom, while neuritis has a distinct pathology and therefore is a disease. The pain of neuritis is always due to pressure either from within or without the nerve sheath. When from within it is due to infection or poison, and when from without it is due to mechanical pressure or some chemical activity.

It is often difficult to differentiate neuralgia from neuritis, but there are a few points to be observed which are helpful and of diagnostic value. Neuralgias are always unilateral. Neuritides are often bilateral Pressure exerted upon an inflamed nerve increases the pain, while deep pressure often relieves neuralgia pain. The pain of neuritis is always associated with the affected nerve; neuralgia pains are often experienced at some distance from the lesion causing the pain.

The physiologic pathology of neuritis demands the application of heat. The ordinary modes of convective heat are often soothing to peripheral nerves, but fall short of penetration. An understanding of the fundamental principles of the action of high frequency currents permits us to direct heat to any part of the body desired; therefore, we are able to make these currents our servant in the treatment of the conditions under consideration.

As it is impossible in a paper of this character to give the technic of application in all forms of neuritis, it is thought best to give the technic in detail in the most common form, that of the brachial plexus, as a control from which the technic in neuritis elsewhere may be deduced

The successful treatment of neuralgia and neuritis depends upon an accurate diagnosis. First of all such conditions as cervical rib, tumors in the neck and axilla, spinal caries and maligancy must be excluded, and all known foci of infection removed.

The local treatment of brachial neuralgia and neuritis is essentially the same, with the exception of a very severe form of acute neuritis, which may require absolute rest in bed for a few days.

The anatomical contour of the shoulder is such as to make close adaptation of metal electrodes to all points more or less difficult; this difficulty may be more or less obviated by using the metal mesh electrode, which adapts itself to all contours of surface, but must be bound firmly in place by a suitable bandage; another, called the diathermy clamp electrode, is quite convenient in the treatment of joints; in absence of these conveniences, electrodes of block tin, from 1½ to 2 inches in diameter, are best. If larger electrodes are used a pad made of several layers of gauze, previously saturated in salt solution, should be interposed. However, the fact that salt pads modify the effects of the current must not be overlooked. A very important matter is the placing of electrodes in such a manner that the nearest route between them shall be thru the part to be treated. High frequency currents flow in a direct line between the electrodes and, if the distance between the edges of the two electrodes is less than the distance through the part to be treated, the current will pass directly across and only heat the superficial tissues. After properly placing the electrodes, connect them to the d'Arsonval posts of the machine. We are familiar with the sign at the railroad crossing, "Stop, Look and Listen." These words should be indelibly impressed upon the brain of every electrotherapist. Now, the electrodes have been placed, connections made to the machine and everything seems to be ready for the turning on of the current, but stop, and look, so as to be sure that everything is in order; start the current flow at the lowest point possible; listen for unfamiliar noises coming from the apparatus. If none are heard, increase the current flow by widening the spark gap until the meter points to 300 ma., set you Interval Timer for three minutes; at its expiration increase the strength of the current gradually to a point of toleration of the patient, then reduce the milliamperage 50 or 100 ma., and set your time clock for 25 minutes. At the expiration of the time gradually reduce the amperage to zero, consuming at least two minutes in doing so. Dur-

ing the treatment listen for unusual noises coming from the apparatus as well as those coming from the patient; if the patient complains of the heat, reduce the amperage; if he complains of a stinging sensation, the trouble will be found in ill-fitting electrodes, in which case slowly return the amperage to zero. (The current must not be turned off suddenly, readjust the electrodes and proceed as before.

If the pain in the forearm be greater than in the shoulder, place one electrode over the shoulder joint, the other on the flexor surface of the forearm; this electrode should be about 3x6 inches in size; otherwise the treatment is the same. A good pain-relieving stunt is to seat the patient on an autocondensation chair pad which is connected to one pole of the machine, the opposite pole to a non-vacuum body electrode held in the hand of the operator and passed rapidly over the painful parts, the strength of current depending upon the sensitiveness of the patient. Another method which is sometimes useful, especially when the neck or parts of the face is to be treated: Seat the patient on the autocondensation chair pad and connect it to the machine; connect the opposite pole to a diathermy hand electrode which is attached to the hand of the operator whose fingers become the active electrode.

An ingenious operator may devise other technic which may be as useful or even better. The **sine qua non** is to reach the part with the proper degree of heat.

(To be continued)

BLOOD PRESSURE IN MEDICINE

The symposium on blood pressure which appeared in the June number of American Medicine is a most valuable contribution to modern medicine. The symposium consists of twenty-seven original articles by men of the highest standing in the profession.

While modern diagnostic methods are more exact and many more cases than heretofore are recognized, it is a fact that hypertension is on the increase. Over two million persons within the United States are known to be suffering from organic heart disease, seventy-five per cent of which is preceded by or accompanied with hypertension. Adding to this number the cases not classified with heart disease, together with a far greater number of unknown cases, makes a grand total that is almost appalling.

Read the list of "Good Things to Come" on advertising page 59.

Necrology

FREDERICK HENRY LADD

Dr. F. H. Ladd, ex-president of Buchanan County Medical Society, passed away October 19th. The doctor had been ill for a year past with an abdominal tumor; he was operated upon at his request a month ago, but without avail. His loss is felt in the medical fraternity of the city. He was an aggressive man, earnest in his work, assiduous in medical society affairs. He graduated in medicine at the Ensworth in 1898, and spent his medical life in St. Joseph, except the period he gave to the army. He spent two years in the M. C. U. S. Army in the capacity of captain.

During the past few years he was active in the field of surgery. He was very fond of his work and enjoyed the confidence of his people. Touching resolutions were passed at the recent meeting of the Buchanan County Medical Society, and an expression of sympathy was extended to his family. His son is managing editor of the St. Joseph Gazette.

WHAT THE WORLD NEEDS TODAY

Herbert S. Hadley, Chancellor of Washington University and former Governor of Missouri: "The world needs many different things today, but that which it needs most and which there is a reasonable hope and opportunity of securing is an established method for the adjudication of international differences according to settled principles of international law.

"Prosperity cannot return until peace is established; and peace will not be established until there is a conviction in the minds and hearts of men that a rule of law has been substituted for a rule of force. And this conviction, this feeling of confidence, will not come until the adjudication of international controversies is established by international agreement and practice.

"The greatest contribution that our country can make to the world's welfare is to join in the support of the Permanent Court of International Justice, and through its decrees establish a rule of law throughout the world."

Dr. Charles Mayo: "The protection of the health of children is the world's greatest need today. Too much time and effort is devoted to the care of the old, while the lives of countless thousands of little children are sacrificed because of lack of the proper care and attention. Education and health must be coupled. Education helps from the neck up, while health makes for the whole man. Health and education are inseparable. Every country must realize that the protection of the child is a community job and not one that devolves solely upon parents. With the present situation of Europe our country now is first, and it would become permanently so if this viewpoint of the development of our future American citizen prevailed. There is no longer any mystery regarding health, disease is understood."

Continuing "The Medical Fortnightly and Laboratory News."

The Medical Herald

and Electro-Therapist

Incorporating the

Kansas City Medical Index-Lancet

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Internal Medicine: Harry Nelson Jennett, Kansas City
Gastro-Enterology: J. M. Bell, St. Joseph.
Electro-Therapy: Burton B. Grover, Colorado Springs.
Surgery: Jno. E. Summers, Omaha.

All communications should be addressed to the Managing Editor.

Vol. XLII DECEMBER, 1923 No. 12

The Editors' Forum

WHAT IS CHIROPRACTIC?

Doctors of Medicine have been condemning chiropractic without really knowing just what it is. So—here is the definition as given out by none other than D. D. Palmer himself, who never having been hindered and detained by medical knowledge, can give an unbiased definition.

"Chiropractic," he says, "is a name given to the study and application of a universal philosophy of biology, theology, theosophy, health, disease, death, the science of the cause of disease and art of permitting the restoration of the triune relationship between all attributes necessary to normal composite forms; to harmonious quantities and equalities by placing in juxtaposition the abnormal concrete positions of definite mechanical portions with each other, by hand; thus correcting all subluxations of the spine, atlas to coccyx inclusive, for the purpose of permitting the recreation of all normal cyclic currents, through nerves, that were formerly not permitted to be transmitted, through impingement, but have now assumed their normal size and capacity for conduction as they emanate through intervertebral foramina—the expression of which was formerly excessive or partially lacking named disease. (To replace the full quota of positive with an equivalent negative; permitting the reconveyance of the intelligent immaterially into the mechanical corporeal.)"

Just a minute. It is not necessary to read it again. You got it the first time, all that is permitted to you—all that you will ever know. You cannot comprehend it—proving that chiropractice is an incomprehensible thing. But the definition is all right as definitions go. It is perfectly legal. You just don't understand these legal documentary terms if any. No, it is not misprinted—the printer did not mix it up—it is all English and in order, and sanitary. It's just over your head. You see you studied medicine and that disqualifies you. You have to study chiropractic say six months and then you can get it,—they can read it forward and backwards, "permitting the reconveyance of the intelligent immaterially into the mechanical corporeal" 'n'ev'rything. Boy, aint that language cerebellar tantalizing convolutions constipatedly speaking. If any.

If this be reason make the most of it.

H. N. J.

AMERICAN MEDICAL EDITORS

THE fifty-fourth annual meeting of the American Medican Editors' Association was held at the Auditorium Hotel, Chicago, October 25th and 26th, under the presidency of Dr. Henry O. Marcy, of Boston, with the efficient aid of Dr. F. H. McMechan, secretary, and Mrs. McMechan, whose active and tactful co-operation did much to make the occasion memorable.

The program was of such varied character, and so well aranged, it was in itself an education and would have done credit to any of the large organizations of medical men.

The outstanding addresses were the President's opening oration, presented with the usual grace and literary flavor for which Dr. Marcy is noted, an address covering the half century in which the venerable presiding officer has helped to make medical history.

Dr. Edward H. Ochsner gave a thoughtful paper on "Medical Economics" covering twenty-two points in which the physician needs more advice and training. It is hoped that this practical argument may have a wide publicity, which it deserves.

Dr. Charles L. Bonifield, editor of the Journal of Medicine and Surgery, of Cincinnati, talked well on "The Question of Full Time Clinical Teachers," and gave his reasons for believing that men with clinical experience can teach students to be better doctors than the pure science instructors in the laboratory. Two papers on "Maternal Welfare," that of Dr. W. D. Chapman, secretary of the Illinois State Medical Society, and "Maternal Morbidity and Mortality," by Dr. George Clark Mosher of Kansas City, vice-president of the American Association of Obstetricians, were presented, the one arguing the advantages of confining the work of welfare to the profes-

sion, witout lay assistance; the other giving a picture of the work now being done in the whole country, especially in the South and the development of the clinic center in the cities.

Dr. J. A. Stucky, of Lexington, Kentucky, gave a graphic description of the needs and the care of the defective classes in the state institutions.

Dr. Charles J. Whalen, editor of the Illinois State Journal, told why quackery and cults have thrived in the United States, and stressed the value of censored publicity for such medical matters as are of value through the lay press. Dr. Whalen has on his staff a trained newspaper man who abstracts medical news for the Associated Press and the Chicago newspapers. The experiment will be watched with interest. The meeting wound up with an elaborate banquet, with an attendance of medical men and women editors as after-dinner speakers, rounding up a most successful convention.

ELECTRICITY THE LIFE

At the thirteenth annual congress of the American College of Surgeons held in Chicago, October 22nd, Dr. George Crile is reported to have said, "We consider that electricity keeps the flame of life burning in the cell and the flame-oxidation-supplies electricity used in operating the animal; the body is made up of twenty-eight trillion cells of which each was a tiny wet battery with negative and positive pole. The brain cells are most positive, the cells of the liver the most negative." Jour. A. M. A., Oct. 27, '23, page 1,451.

PONDERING, PERADVENTURE

When a doctor does contract work for a commercial institution he is looking after the interests of his employer first; his professional relation to patient is secondary. The relation of doctor to a firm or corporation is about that of a lawyer to his client.

When a doctor examines for life insurance companies, ostensibly, first, he is an employee of such company and must look after their interests.

This is rather a new relation to patient that the doctor assumes in life insurance and the old relation of patient to doctor does not prevail.

Does this changed view point unfit a doctor psychologically for the office of family doctor?

Dr. Emmett P. North, president of the stateboard of health, announced, October 23d, that the examinations for medical licenses in Missouri, scheduled for December 4-6th, will be held up until after the investigation has been made of the medical schools in the state.

WESTERN ELECTRO-THERAPEUTIC ASSOCIATION

The sixth annual meeting of this association will be held at the Little Theatre, Kansas City, Mo., the week of April 14 to 18, 1924, under the presidency of Dr. H. H. Bowing, of Rochester, Minn. Dr. William L. Clark, of Philadelphia, will be a guest of the association, and will hold a clinic. The president has appointed the following committees:

Committees for 1924

Arrangement—Dr. Charles Wood Fassett, Dr. Frank J. Iuen, Dr. Paul F. Cope.

Direct and Continuous Currents—Dr. Frederick H. Morse, Dr. Burton B. Grover, Dr. Jefferson D. Gibson.

Phototherapy—Dr. Lynne B. Greene, Dr. J. W Neptune, Dr. E. T. Molzahn.

High Frequency Currents—Dr. T. Howard Plank, Dr. Frank C. Fuller, Dr. Joseph Waddington.

Roentgenology—Dr. E. H. Skinner, Dr. Clyde O. Donaldson and Dr. L. A. Marty.

Static Currents—Dr. S. Grover Burnett, Dr. J. E. M. Thompson, Dr. H. W. Nye.

Hydrotherapy—Dr. Curran Pope, Dr. Charles Cahill.

Research—Dr. A. D. Willmoth, Dr. Roland G. Breuer and Dr. Wm. L. Ross.

Radium—Dr. Sanford Withers, Dr. D. T. Quigley, Dr. George Knappenberger.

Apparatus—Charles F. Mills, Maurice Levison, W. A. Rosenthal, R. S. Stoltz, E. M. Wirthlin.

Clinics—Dr. L. A. Marty, Dr. W. P. Grimes, Dr. Chas. Fitzsimmons.

Dr. Bowing has suggested that a symposium on each subject would be desirable, and each committeeman should at once get in communication with his associates for the purpose of co-operation.

Members desiring to present papers should send their titles early to the secretary.

REMOVALS

Dr. F. H. Millener, 1550 South Twenty-ninth street, Omaha, Nebr., to Alpine Tavern, Alpine, Calif.

Dr. George E. Keller, Huxley, Iowa, to DeSoto, Iowa.

Dr. J. W. Greenman, 305 City National Bank, to 710 Hubbel building, Des Moines.

Dr. Clyde Moore, 429 Brandeis building, to Omaha Loan and Building Association building, Omaha, Nebr.

Dr. C. R. Kennedy, 460 Brandeis building, to Omaha Loan and Building Association, Omaha, Nebr.

Dr. M. E. O'Keefe, Council Bluffs, Iowa, to Clinic building.

Dr. V. L. Treynor, Council Bluffs, Iowa, to Clinic building.

Dr. W. E. Ash, City National Bank to Clinic building, Council Bluffs, Iowa.

Dr. F. W. Dean, City National Bank building, to Clinic building, Council Bluffs.

Dr. J. E. Summers, 620 Brandeis Theater building, to 426 Bankers' Reserve Life, Omaha, Nebr.

Dr. J. F. Hyde, 460 Brandeis building, to Omaha Loan and Building Association building, Omaha, Nebr.

Miss Bessie Miller, 1518 Downing street, Denver, Colo.; not found.

SOME NEWSPAPERS AND THE PRACTICE OF MEDICINE

In the correspondence column this week is a letter which shows how poorly informed some newspapers are with regard to the conditions of medical education and licensure in the United States and what has been accomplished in the last two decades. A St. Louis paper suddenly discovers that a coterie of men in Missouri is selling counterfeit medical diplomas, and takes it for granted that the entire medical profession needs to be reformed. It might as well say that because a nest of counterfeiters is discovered, our national currency system should be revised. The editor is evidently unaware of the rapid evolution which, mainly through the work of the American Medical Association, has been going on in medical education during the last twenty years—improvements which have had their echo in similar reforms in the professions of law and dentistry, and which have blazed the way for rapid improvements also in the field of liberal arts education; he may not know of the prolonged and continuous propaganda carried on by the Association to rid the country of medical quacks and diploma mills. As shown in a recent comment, the existence of this medical diploma ring in Missouri is merely an incident compared with the fact that, through the work of the medical profession, such diplomas are now worthless in forty-six states, and will be of no value whatever just as soon as the other states secure the necessary legislation. Meanwhile, it is significant that this diploma-mill ring is in the state in which, two years ago, the medical profession struggled in vain to prevent the emasculation of the medical practice law by which the very diploma mills now being exposed are enabled to carry on their barter in diplomas more freely and "legally." The recent disclosures, indeed, were not unexpected, since they involve medical schools which for several years have been rated by the American Medical Association in its lowest classification. It is sincerely hoped, nevertheless, that the publicity given to the affair will result in the establishing of adequate legal safeguards against all such medical imposters, and particularly, in two states, Arkansas and Connecticut, where such safeguards are most seriously lacking. For many years the medical profession has struggled, and with considerable success, to secure better educational qualifications for physicians and greater efficiency in the practice of the healing art.—Jour. A. M. A., Nov. 10, 1923.

Constant pain in connection with a large prostate should make one suspicious of the possibility of malignancy.

Society Scintillations

THE MEDICAL ASSOCIATION OF THE SOUTHWEST

Official Minutes of the Annual Meeting, October 12, 1923, Convention Hall, Kansas City, Mo.

The Annual Meeting of the Medical Association of the Southwest was called to order at 1:15 p. m. by the Vice-President, Dr. W. H. Addington of Altoona, Kas., in the absence of Dr. Fred H. Clark.

The minutes of the Hot Springs meeting were read and approved.

The following splendid letter from President Clark was read:

To the Members of the Medical Association of the Southwest.

Dear Friends:—When you honored me one year ago by electing me as your president, I felt I was being elevated to a position to which I did not aspire, for I felt I had been honored sufficiently for any member; nevertheless I began at that very time to look forward with great expectancy to the pleasure I should have in attending the meeting this year which I confidently expected would be the greatest in the history of the Association. You will perhaps enter somewhat into my disappointment at not being able to accomplish that for which I held such high expectations.

As you know my time is not my own now and so I find at the last minute that I shall not be able to be with you; just how disappointed I am I leave you to imagine.

I know that you are to have such a time in every respect as you have never had before; that the scientific treat will be one that you will remember as long as you live and how I wish I could be there to enjoy it with you.

For years most of you know I have been laboring for meetings that were more largely clinical and this year that dream is to be realized; I feel that for years to come you will hold in grateful remembrance Dr. Skinner and his loyal supporters who have by their untiring efforts made this great meeting possible.

Now what of the future? Gradually this splendid organization has been taking a place that nothing else could take in the professional development of this great Southwest country; true, it has not measured up to what we would all like to have seen it, but "It has done its best" and has been paving the way for better and greater things yet to come.

I feel I do not need to say to you "Press on," for I feel confident that is your desire and purpose, and that in the coming years the Medical Association of the Southwest will yield a still greater influence than it has in the past.

I cannot help hoping that it may not be long before I may again be stationed where I shall be in closer touch with you all and be again actively identified with this splendid organization which has more than any other single influence helped me to become what I am today.

May I quote as a motto for this Society those splendid words of advice given by St. Paul: "Forgetting those things which are behind, and reaching forward unto those which are before, I press toward the High Prize" that awaits those who persevere.

My earnest desire and prayer is that the Medical Association of the Southwest may in the coming year

be more prosperous and exercise a greater influence than it ever has before.

Very sincerely,
FRED H. CLARK,
President.

The report of the Secretary-Treasurer was read as follows:

To the Members of the Medical Association of the Southwest for 1923:

(a) At the general business meeting of the Medical Association of the Southwest at Hot Springs in October, 1922, with President St. Cloud Cooper in the chair, the following resolutions were presented by the Executive Committee and unanimously adopted:

Resolved: 1. That the scheme of annual meetings in the future include a well organized program of diagnosis and therapeutic clinics and educational lectures by physicians of national and international reputation. Motto: "Medical Gospel for the General Practitioner and General Medicine for the Specialist."

2. That the society proceed to suspend the publication of its journal at the end of the advertising year.

3. That a charge of $5 be made to all attending these annual clinics, local men included.

4. That this plan be carried out at Kansas City next year, 1923.

5. That the society employ a salaried secretary and enter an aggressive campaign to enlist the support of the 13,000 physicians in the territory of the Southwest.

6. That the annual membership dues be reduced to $2 a year, one dollar of which, this first year, shall be applied to cover the deficit now existing on the Journal.

In accordance with these resolutions your Secretary-Treasurer assisted in the organization of The Kansas City Clinical Society through a committee appointed by Dr. George E. Bellows, president of the Kansas City Academy of Medicine, upon December 4, 1922. This was necessary in order to obtain immediate and sufficient financial resources to carry out your resolutions.

The attached announcement folder carries the information and is offered as a complete report upon the activities of the Kansas City Clinical Society. This illustrated folder was mailed to 13,500 doctors by the Kansas City Chamber of Commerce.

As the second exhibit, this report carries the letter upon the Kansas City Clinical Society stationery dated July 16th, in which information regarding the Fall Clinic and the method of registering members of the Medical Association of the Southwest is explained.

(b) Attached to this report is an alphabetical list of those who have paid dues and donations to the Treasurer of the Medical Association of the Southwest during 1923.

The summarized statement dated October 1, 1923, is attached herewith.

The secretary-treasurer would like to have authority to take enough from the general fund of the Medical Association of the Southwest to cover the amount still due the El Reno-American, because of the note signed by Dr. Fred H. Clark. This amounts to $46.50. This would leave a balance in the treasury of the Medical Association of the Southwest of $85.

Summary, October 1, 1923

Received for dues, 1923		$258.00
Additions—Risser 6, Skinner 2, Randles 2.		10.00
Total receipts for dues		$268.00
Only one-half available for debts		$134.00
Received through Dr. Clark to pay for debts—Donations		214.00
Total available for debts		$348.00
Paid debts—		
Groves Bros.	$286.00	
Sperry.	30.75	
El Reno American	27.25	
Total debts paid		$344.00
Still available for debts		4.00
Total treasury account. M. A. S. W.	134.00	134.00
Paid out—Stamps	2.50	
Mimeo letter	4.00	6.50
Balance M. A. S. W.		$127.50
To balance—debt account		4.00
Total in hand by E. H. Skinner		$131.50

The report as read was accepted and approved. Drs. Bell and Becton audited the accounts of the Treasurer and found them correct and their report was accepted.

It was moved, seconded and carried that the debt of the El Reno American be paid. (This amounts to $46.50 and has been paid October 15, 1923).

It was moved, seconded and carried that the President, Vice-President for Missouri and the Secretary be appointed as a court to pass upon the validity and payment of certain accounts if presented.

Dr. Willhour moved, and Dr. O. B. Hall seconded the motion to make the Medical Herald the official organ of this association and that the annual subscription for this journal be included in the annual dues. Motion carried.

The election of officers for 1924 resulted as follows: President, Dr. W. H. Addington, Altoona, Kas.; Vice-Presidents, Dr. Joseph Becton, Greenville, Texas; Dr. L. S. Willour, McAlester, Okla.; Dr. St. Cloud Cooper, Fort Smith, Ark.; Dr. O. B. Hall, Warrensburg, Mo.; Secretary-Treasurer, Dr. E. H. Skinner, Kansas City, Mo.

It was moved, seconded and carried that Kansas City be the place for the 1924 meeting for two reasons, to-wit: (1) This combination meeting at Kansas City has been so successful and (2) no other invitation for the 1924 meeting was presented.

It was moved by Dr. Willhour, seconded and carried that a more active campaign for membership be instituted in 1924.

Reported and submitted by
E. H. SKINNER,
Secretary-Treasurer.

NOTICE: The mailing list of the Southwest Association is being corrected and revised. Members are requested to notify The Medical Herald promptly of any change in address, in order that their journal may not be delayed.

THE ACADEMY OF MEDICINE BANQUET

The banquet given by the Kansas City, Mo., Academy of Medicine, Tuesday night, November 13, 1923, to the medical profession at large, was a most enjoyable event, shared by about 308 doctors.

Dr. Ray Lyman Wilbur of Leland Stanford University, California, and president of the A. M. A., was the guest of honor and principal speaker.

Dr. Wilbur in his address reviewed briefly the strides that medicine had taken in the last twenty years, its great men and great events. He used this as a basis for pointing out some of the present day evils that need correcting. His was a most practical and sound and wholesome view.

He reviewed the great benefit that the laboratories and other aids of medicine have been but decried that the trend of the times had been to take away from diagnosis the first and essential information that can be acquired by the five senses (physical diagnosis), regardless of the other aids.

He said the greatest error today was that we as a profession had not carried the public along with us in our modern advance, and shown them what we have done and are doing as a profession. "We must sell ourselves and give information for the benefit of the whole group. This matter requires careful thought and tactful handling."

We seem to be selfish as a profession, and the speaker said he hoped that it would be possible for us to work out some plan or system whereby we might get the public to understand us better.

"We must create a reaction of the people who want something of those (we) who have something to give. We must ever be in the line of service. We must actually deliver to the public what we have to give."

If you, before, had been inclined to remark the passing of the family physician, after hearing Dr. Wilbur "the passing" might be taken to be the family physician on his return trip!

Other short addresses of the evennig were made by local doctors—Dr. J. D. Griffith, Dr. Jabez N. Jackson and Dr. Frank Hall.

May the Academy of Medicine sponsor many more such notable events.

AMERICAN CONGRESS OF INTERNAL MEDICINE

The Congress will hold its Annual Convention in St. Louis, February 18 to 24, under the presidency of Dr. Elsworth Smith. Dr. Frank Smithies, of Chicago. is the secretary. Special Clinics will be held at the St. Louis and Washington Universities. Dr. Wm. Engelbach is the chairman of arrangement committee.

HOSPITAL SITE PURCHASED IN CALIFORNIA

The government has purchased 500 acres of land near the foot of Loop Canyon, one mile north of San Fernando. for $100,000 to erect a $1,000,000 hospital for tuberculous ex-service men, it was announced, October 22d, by the chairman of the Southern California hospitalization committee of the American Legion. The property was known as the Ford-Craig ranch. Ground will be broken in December and it is hoped to have the buildings ready for occupancy next spring. The buildings will be of cottage type, constructed of hollow tile, and will have a capacity of 250 patients. Camp Kearney will probably be closed when the San Fernando Hospital is completed, as another veterans' hospital is to be constructed at Livermore.

AMERICAN ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

The twenty-eighth annual meeting of the association was held in Washington, D. C., October 16-20, under the presidency of Dr. T. E. Carmody, Denver. Dr. Hubert Work, Secretary of the Interior, delivered the address of welcome. The following officers were elected for the ensuing year: President, Dr. Walter B. Lancaster, Boston; vice-presidents, Drs. William P. Wherry, Omaha; S. Hanford McKee, Montreal, Canada, and Harry L. Pollock, Chicago; treasurer, Dr. Secord H. Large, Cleveland; secretary, Dr. Luther C. Peter, Philadelphia. Dr. Clarence Loeb, Chicago, was elected editor of the transactions.

The Doctors' Library

"Next to acquiring good friends, the best acquisition is that of good books."—C. C. Colton.

CLINICAL ROENTGENOLOGY OF DISEASES OF THE CHEST

By H. Wessler, M. D., Adjunct Physician and Associate Roentgenologist, Mt. Sinai Hospital, and Leopold Jaches, M. D., Roentgenologist, Mt. Sinai Hospital, New York City. The Southworth Company, Troy, N. Y.

First impressions are best. If they persist to the last, there is no doubting that they are correct. One glances through this volume and is immediately struck by the clearness of the radiographic reproductions, by the clean typography, by the quality of the paper. These first impressions are progressively strengthened by the comprehensive scope of the author's chapter scheme and by the detailed analysis of roentgen values in correlation to the clinical estimation of symptoms.

This beautiful volume runs to 552 pages with an index that might be somewhat more extensive. Knowing what is in the book and the elaborate detail of sub-chapter headings, the reviewer would like to see a more detailed index. This, however, only detracts from the book as a reference work by the abstract chaser. The book seems to have every point of discussion covered and covered satisfactorily.

There are 430 illustrations and they are excellent. One who is in the know will realize the enormous effort expended by the authors to obtain such execution by the lithographer. Wherever the plate of the whole chest carries an arrow to a small lesion, they have added another illustration, full size, of the particular area.

There are ten sections of the book: 1. The Normal Lung. 2. The Pulmonary Vessels. 3. The Trachea and Bronchi. 4. The Lungs. 5. The Pleura. 6. The Mediastimun. 7. The Intrathoracic Lymph Nodes. 8. The Diaphragm. 9. Surgical Diseases of the Chest. 10. Diseases and Abnormalities of the Chest Wall.

Each section is divided into chapters. For instance, Section IV is titled, The Lungs. There are nine chapters to this section as follows: Pulmonary Tuberculosis in Adults; Pulmonary Tuberculosis in Children; Pneumonia; Pulmonary Suppuration; Abscess and Gangrene of the Lung; Chronic Non-Tuberculosis Infections; Indurative Pneumonia; Actinomycosis; Echinococcus Cyst; Syphilis; Tumors of the Lungs; Primary Tumors; Metastatic Tumors.

The chapter sub-titles may be exampled as follows: Chapter 6, Pulmonary Tuberculosis in Children; Pathology, Primary Lesion, Healed Primary Lesions, Caseous Pneumonia, Infantile Phthisis, Tuberculosis of Intrathoracic Lymph Nodes, Hilum Tuberculosis, Recurrent Hilum Pneumonia, Basal Tuberculosis, Miliary Tuberculosis, Adult Forms of Tuberculosis.

The authors, one an able clinician of distinction, the other a Roentgenologist of international reputation, who have worked together at Mt. Sinai Hospital in New York. have succeeded in producing a text-book and analytical reference volume of extreme value to the profession. They realize that the roentgenologist is rarely a good clinician and that the clinician is scarcely a roentgenologist. They do indicate the interdependence and collaboration necessary to merge the diagnostic facts to the best interests of the pathological patient.

The authors do not overlook or minimize the values of some procedures in chest radiography that are

sometimes eliminated in the modern haste of technical radiography, ofttimes a commercial vice. For instance, they insist that fluoroscopy is indicated to determine pulmonary areation and diaphragmatic motility. Again, they feel that the single plate of extraordinary detail is far better than mediocre stereoscopic exposures. Stereoscopy fools us frequently. Detail is preeminent. It is a grand and glorious feeling to find these modern authors demanding plain plates without screens and made with a gas tube of high penetration. Dunham has always advocated just this but we have been thrown off the track by seductive, honeyed words from the manufacturers of screens and bed-side units. Taken altogether, the book is satisfying. The authors even chapterize Syphilis of the Lungs. That takes courage and experience. It also demands a lot of sustained effort through the years to follow suspicious cases and pick out the proof.

This book may seem expensive ($14.00) but it is worth much more than many more expensive atlases and X-ray picture books. This book carries the Gospel truth upon thoracic diseases in addition to its excellent illustrations. The quality will remain long after the price is forgotten. Get it, clinician, and read the roentgen gospel of shadow values! Get it, radiologist, and place it near your viewing box for ready reference! E. H. SKINNER.

OUTLINE OF ULTRA-VIOLET THERAPY

By A. J. Pacini, M. D., Chicago, Ill.

The field of ultra-violet therapy has been recently enhanced by this author, who presents his manual entitled, "Outline of Ultra-Violet Therapy."

The opening chapters cover the general principles, mechanics and qualities of both the air and water-cooled lamps of a modern type as he sees them after a considerable experience. To quote his own words, "With this newer and biophysically established concept of the qualities of the ultra-violet regions, it is at once apparent that the empirically introduced standard of systemic and focal lamps for the air-cooled types has made for profound confusion and possibly injudicious application in the clinic." Then, through the succeeding chapters, the author presents certain outlines of procedure to accomplish clinical success. Two chapters are devoted to Regional Actinotherapy; one chapter is given to each of the following subjects: Fractional Actinotherapy, General or Systemic Actinotherapy, Intensive Actinotherapy, Bacteriacidal Actinotherapy, Abiotic Actinotherapy, Actinotherapy in Metabolism.

Within each of the divisions of the discourse are conveniently placed dosage tables, statements of principles, and hints for further clinical application. These will be of especial value to those who still feel the need of guidance.—Lynne B. Greene.

INTERNATIONAL CLINICS

A Quarterly of Illustrated Clinical Lectures and especially prepared original articles. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, U. S. A. Vol II. Thirty-third Series, 1923. J. B. Lippincott Company, Philadelphia and London.

Again, the reviewer is charmed to peruse with profit, this splendid quarterly publication. There are seven leading articles of wide range.

Insulin is stressed by four papers under the authorship of McPhedran and Banting, Seale Harris, Hamburger and Petty. Banting states that "Insulin is not a cure for diabetes, it is a treatment. It enables the diabetic to burn sufficient carbohydrate, so that proteins and fats may be added to the diet in sufficient quantities to provide energy for the economic burdens of life." Seale Harris forces attention to the dietetic regime of the diabetic so as to minimize the demand for insulin. Hamburger offers clinical reports and daily record systems to demonstrate the brilliant effects of Banting's discovery. Petty discusses the "Practical Use of Insulin in Treating Diabetes."

"Allergic Disease" is discussed from a pharmaceutical standpoint by Van Leeuwen of Holland. "Tularaemia: A new disease of Man," is described by Edward Francis, M. D., of the Public Health Service, as a specific infectious disease transmitted from rodents to man by bites and therefore laboratory workers and market men are most frequently afflicted. "The Clinical Value of Electrocardiography" is handled practically by John Miller Wilson, M. D., of Pasadena. Its value in diagnosis and prognosis of early myocardial lesions is sanely portrayed by word and illustration. Dr. Charles Goodman of New York declares that "Blood Transfusion (will be) Made Easy" by using public charges as donors, thus minimizing expense. Organization and simplicity of technique are his keynotes. "The Pathology of Will and Voluntary Action," by Thomas Verner Moore, occupies forty pages of psychiatric interest. Dr. James Burnet of Edinburgh discusses "Chorea." He stresses the hygeinic measures beyond medication.

"The Roentgen Ray as a Diagnostic Aid to the General Practitioner" receives simple exposition by Groover, Christie and Merritt of Washington. They tell gospel facts in one syllable words.

The Surgical Section stretches wide with clinical articles upon "Rectal Surgery Under Local Anaesthesia," "Aneurysm of the Hepatic Artery," "Septic Infaret of the Kidney," "Periosteal Chandro-Sarcoma," "Otitic Sinus Thrombosis," and a pot-pourri under the title of "Problems in Surgical Diagnosis. Pathology and Treatment."

Thusly, must the reviewer catalogue, without abstracting this quarterly issue of the International Clinics. Every article is worth while because it is prepared properly by a chosen author. The Editors purposely anticipate each issue with demands upon those who are able to report upon the progressive features of modern medicine.

E. H. SKINNER.

PHYSIOTHERAPY TECHNIC

By C. M. Sampson, M. D., formerly Chief of Physiotherapy Service U. S. Army General Hospital No. 9, Lakewood, N. J.; formerly Chief of Physiotherapy Service U. S. Army General Hospital No. 41, Fox Hills, Staten Island, New York, etc. Eighty-five illustrations. C. V. Mosby Company, St. Louis, 1923. Price $6.50.

In the preface the author makes a statement that commands an interesting and respectful hearing. He says: "Practically every step in every technic given in the book is based upon research both by myself and many others who, probably, could not be accused of being prejudiced in favor of the methods. Not a single technic which failed to stand such checking has been included."

The book consists of over 400 pages of "brain food," divided into twenty-eight chapters fully covering each subdivision of physiotherapy.

It is a fitting expose of the subject of which it treats. He tells the story of his experiences in a conversational manner which cannot fail to make the facts sink into the minds of its readers. The story is one of an enthusiast, but being backed up by professional integrity and experience, it commands the respect of the most critical.

While the author postulates an uncharitable attitude toward the writings of others, nevertheless it is a book of untold value to the physiotherapist.

It is somewhat dogmatic in expression, but not without justification. It is a book that can be cherished, not only by every worker in the field of physiotherapy but by every practitioner of medicine.

The great value of this book lies in its record of facts gained by an unprecedented experience.

"To show the world what long experience gains,
Requires not courage, though it calls for pains;
But at life's onset to inform mankind
Is a bold effort of a valiant mind."—Crabbe.

B. B. G.

Collected Papers from the Washington University School of Medicine. Vol. 1, 1921, with 347 Illustrations, 1,070 pages. C. V. Mosby Co., St. Louis, 1923. Price $12.00.

This series of clinical papers issued by the Faculty of the school of medicine of Washington University constitutes the first volume of the collected papers to appear annually. These appeal especially to the Alumni of the Washington School of Medicine but are of great interest to clinicians and to the profession generally. These papers represent a great deal of the work done at Barnes Hospital, St. Louis Children's Hospital, Barnard Free Skin and Cancer Hospital and the dispensaries and laboratories of the School of Medicine itself in clinical and research work. The volume and the work speak with great credit to the standing of the school and the wonderful strides the school has made in the last nine years. Notably the first three papers are from the pen of Dr. George Dock and are of general interest: "The Social Trend of Medicine," "A Visit to a Chiropractic School," "Focal Infection and Arthritis." This writer wishes to suggest that in order to give the volume a practical working use that it be more thoroughly indexed and cross-indexed that its most varied contents may be accessible as a work of reference.

H. N. J.

TONSILLECTOMY

By Means of the Alveolar Eminence of the Mandible and a Guillotine. With a Review of the Collateral Issues, by Greenfield Sluder, M. D., F. A. C. S., Clinical Professor and Director of the Department of Rhinology, Laryngology and Otology, Washington University School of Medicine, St. Louis, Mo. With ninety illustrations. Published by C. V. Mosby Company, St. Louis. Price, $5.00.

Professor Sluder states in the preface the object of this monograph is to present satisfactorily "The Method of Tonsillectomy by Means of the Alveolar Eminence of the Mandible and a Guillotine." He has done this in a way that will satisfy everyone. The artist, Mr. J. M. Heller, has given illustrations of a very high order. The entire text has been rewritten and he has reviewed embryology, comparative and general human anatomy, physiology, pathology, Clinical laryngology, and surgery .

Chapter 1 describes development of methods. The Sluder Method is well presented and illustrated step by step. I am quite sure any one desiring to use this method will be greatly aided by reading the book. By doing so no one can fail to remove all the tonsils. As a rule failure in the Sluder Method is apt to be due to the operator not following the details and not to the method itself. No one should undertake this method until he is first familiar with each step of the operation.

Chapter 2 is given over to embryology, comparative anatomy and human anatomy. The blood supply is described both arterial and veinous. These illustrations are well made.

"Physiology and General Pathology of the Tonsil," by Arthur W. Proetz, M. D., Instructor in Oto-Laryngology, Washington University School of Medicine, St. Louis, Mo. Dr. Proetz writes well and calls our attention to all of the different opinions given since 1882 on the physiology of the tonsils. He names five theories of tonsil function:

1. The Theory of Protection.
2. The Theory of Internal Secretion.
3. The Theory of Hematopoiesis.
4. The Theory of Elimination.
5. The Theory of Immunity.

General Pathology. Dr. Proetz describes acute and chronic inflammations of the tonsils under this division and calls attention to the many types of microorganisms encountered.

"Indications for Tonsillectomy and Prognosis." Even Professor Sluder admits that it is often impossible to conclude by inspection that the tonsils are abnormal or normal.

Hypertrophied tonsils that obstruct breathing should be removed.

Recurrent Tonsillitis, Recurrent General Sore Throat, Recurrent Lingual Tonsillitis and Tracheitis, Enlarged Cervical Lymphatic Glands, Focal Infection, Chronic Tonsillitis and Indigestion and Bad Breath, Focal Infection in Relation to Intraocular Lesions, Sphenoiditis and Headache. The above named are indications for Tonsillectomy. Attention is called to disasters which might follow tonsillectomy. X-ray and Radium is also mentioned. Here the laryngologist must decide between this method or a tonsillectomy.

Contraindications. The indications for tonsillectomy are almost legion. There are also some against the operation, such as very large Thymus gland and hemophilia. The patient's condition should be very carefully gone into before operating. Frequently the proper treatment will soon get the patient into such a condition that the diseased tonsils and pharyngeal adenoids may be safely removed. The skillful laryngologist endeavors to prevent accidents by first thoroughly examining these patients before operating upon them.

The operation and choice of anesthetics is considered, also Pulmonary abscess. Trauma can be prevented by the experienced operator who understands the Sluder Method.

Chapter 6 deals with technic. Sluder calls it "The Alveolar Eminence of the Mandible." Here the illustrations both of the instruments and the operative procedure are excellent. The directions here given should be carefully studied by operators desiring to use the Sluder Method. If this is done I fail to see how one could fail in doing a successful tonsillectomy.

"Adenoidectomy with Direct Vision" by I. D. Kelley, Jr., M. D., Instructor in Oto-Laryngology, Washington University School of Medicine, St. Louis, Mo. Dr. Kelley has devised (Figures 80-81) a very practical direct vision adenotome. The advantages of this instrument are several. First, direct vision; second, the adenoids are removed in mass; third, does away with trauma; fourth, no stripping of mucous membrane, doing away with soreness and neck stiffness.

Drs. Sluder, Proetz and Kelley have written a very useful book. Every one doing tonsillectomy should study this book.

The C. V. Mosby Company have used readable type and brought the book out in their usual high order.—Hal Foster.

NOTE—The Medical Herald's Kansas City office will supply any book reviewed in this department at publisher's price, prepaid. We can also supply any book by any publisher in the world. If an order for two books be sent at any one time, the purchaser will be entitled to a six months' subscription to the Herald.

Medical Melange

NEW BOOKLET

Reed and Carnrick have published a most illuminative and complete brochure on "Human Constipation and Its Animal Prototypes." It is replete with biologic cuts and references. It portrays the subject from a new and broader standpoint than that usually taken by the profession. It must be read to be appreciated. Every medical man must have a copy. It reflects much credit upon the research department of the house. It calls attention to the virtue of Pancrobilin, a very meritorious preparation for intestinal and gall bladder stasis.

PAINFUL MICTURITION IN PATHOLOGICAL CONDITIONS

In health the act of micturition is a painless, yea, even pleasing process, unless the desire to empty the bladder cannot be promptly fulfilled, causing distention; or in cases of hyperacidity due to indiscretions in diet. In pathological conditions, however, the general practitioner's attention is frequently called to disturbances of micturition, among which is the subjective symptom of pain. This pain, which is experienced during many cases of sickness, and which adds to the discomfort of the patient, is generally due to inflammation of the mucous membrane of the urethra, resulting in a urethritis. That there is a form of urethritis of non-venereal character is now recognized. The abnormal maters found in the urine in various conditions include acetone, albumin, bile, blood, cystin, glucose, hemoglobin, fat, pus, spermatozoa, epithelial cells, mucous casts, etc., some of which are more or less irritating in their passage through the urethra. In cases where the urine is charged with an abnormal amount of oxalate crystals, especially in concentrated urine, the friction in their passage over the urethral membrane always causes pain. In bacteriuria, when the contamination arises from some source of sepsis external to the urinary tract, pain frequently attends the avoidance of urine. In febrile diseases, particularly in scarlet fever, diphtheria, follicular tonsilitis and pneumonia, when the urine is dark, concentrated and surcharged with pigments, irritation often attends the act of micturition. In some pathological conditions intra-corporeal decomposition occurs, causing the urine to become putrid, ammoniacal and irritating. Inflammation of the prostate is most commonly due to gonorrhea, but there are instances where there is no history of such infection, in which the **bacillus coli** and **staphylococcus** are responsible for the irritation and pain experienced during the act of urination. Gouty albuminuria, especially in cases of old people, the excessive secretion of urea causes frequent and "fiery" urinations. These are cases which properly belong to the domain of the general practitioner and as such cannot be referred to the genito-urinary surgeon or specialist. "It is here," said Dr. Malsbury, "that the general practitioner must be equal to the occasion, for the patients are not few in number by any means, and as a rule are sorely distressed." For the alleviation of this unpleasant symptom of pain, there is no safer or surer remedy than Sanmetto. When included in the treatment, not combined but alternated with other indicated remedies, it will afford the patient prompt relief and add to his comfort. As blended in Sanmetto, the constituent genito-urinary remedies are presented in the most acceptable form. The preparation is not a strong extraction of the drugs, all of which are guilty of causing nausea or stomachal disturbance when given in the crude and concentrated form—but a well-balanced "composite" of the milder properties of these drugs; and hence it is readily tolerated and it can always be relied on to exert a mild, soothing influence throughout the urethral passages. Whenever the patient complains of painful micturition the physician will do well to remember the advantages offered in the administration of Sanmetto. Furthermore, it will not interfere with his general treatment, provided it is given by itself and between the times of other medication. The usual dose in such cases is one or two teaspoonfuls in a little water three or four times a day.

AN EXCELLENT FLUID LAXATIVE FOR CHILDREN

Many small patients object stubbornly to taking fluid cascara on account of its bitterish taste and so do many adults. A number of other preparations in use are quite as disagreeable. A warm welcome, therefore, awaits Seno-Mint, the new Abbott preparation. This is not only laxative but also antacid, carminative and sedative; qualities which, when treating children, the physician frequently finds advantageous to combine in a single efficient dose. For constipation in children is usually attended by more or less gastro-intestinal disturbance characterized by hyperacidity, fermentation, gas formation, eructations and general irritability. Seno-Mint is also said to be an excellent laxative for many women, more especially for those in delicate health and unaccustomed to taking the ordinarily harsh cathartics, patients who need a regulator of the bowel function at times and not a mere "physic." It is furthermore said to act without griping and without depressing the intestinal tonus, as most cathartics do. A sample may be had by writing to The Abbott Laboratories, Chicago. The regular stock package contains two ounces and has a detachable label; it is a handy package for dispensing by the physician or pharmacist.

CONTROL OF NERVOUS SYMPTOMS

Many exacting clinicians have found Pasadyne (Daniel) of the utmost value in the control of such nervous symptoms as extreme irritability, nervous instability and sleeplessness. A condition in which Pasadyne (Daniel) has demonstrated its distinctive worth is the occasional severe hysterical crises which the practitioner must meet with a sedative that is potent and yet safe. In patients suffering from these manifestations, Pasadyne (Daniel) shows its power to tranquilize and bring about sleep. It is not only of high potency as a sedative and soporific but is free from depressing after-effects, an advantage it possesses over most other like agents. A sample bottle of Pasadyne (Daniel) may be had by addressing the laboratory of John B. Daniel, Inc., Atlanta, Ga.

TONGALIAN "COLDS"

A physician reports: "I prescribe large quantities of Tongaline for many conditions for which it is particularly indicated, but I obtain especially gratifying results from its use for what are commonly called "colds," the symptoms of which are chills, fever, sneezing, coughing, etc., and for which the system requires, first of all, prompt and thorough elimination. I prescribe 4 ozs. Tongaline, directing that two teaspoonfuls be taken in a half a glass of water, preferably hot, every two hours for three or four doses, or until the patient is thoroughly under the influence of the medicine; then one teaspoonful every three hours, until the attack has been absorbed or the patient has recovered."

THE TREATMENT OF COMA WITH ILETIN (INSULIN, LILLY)

The most striking value of Iletin (Insulin, Lilly) is evidenced according to the medical department of the Lilly Research Laboratories, in the treatment of diabetic coma. Naturally, one must be sure that the patient is actually suffering from coma due to acidosis before Iletin is administered. In such cases large doses are required and it is important that they be given at the earliest possible moment. It is said that doses ranging from 20 to 100 units may be given at one injection and following this administration it is essential to know that the patient has sufficient carbohydrate supplied in order to produce a continued glycosuria during the time the acidosis is being treated by Iletin injections.

If 100 units of Iletin are given, then within the following ten hours at least 100 grams of glucose or sugar should be given. Other measures which have always been employed in the treatment of diabetic coma should also be used in conjunction with the Iletin treatment. These are rest and quiet for the patient, forced fluids, sodium bicarbonate and supportive measures as indicated.

As the condition of the patient improves clinically, less and less Iletin will be required until finally the patient is placed on a balanced diet and the dose of Iletin reduced to the minimum amount required to free the urine of sugar. Those cases in a moribund state may be beyond recovery even with the best Iletin treatment, but on the other hand, many severe cases which would otherwise die will be restored within a comparatively brief time. In such cases Iletin is an emergency measure and one should not fail to employ it.

ANTITOXIN PROGRESS

Ever since Behring and Roux gave diphtheria antitoxin to a waiting world, the most progressive biological laboratories have been engaged in reducing to a minimum the inconveniences and uncertainties of antitoxin administration.

The doses given at first were too small, and yet quite large enough in volume. The manufacturers soon succeeded, however, in eliminating useless water from the serum and otherwise concentrating it. Meantime more accurate methods of assaying it were developed, the United States Public Health Service cooperating.

The packages, too, have been improved. The profession has for many years insisted on a syringe package, and in such a package, with the serum in contact with the rubber of the piston, adhesion between rubber and glass has been a source of great difficulty in handling.

One by one all the practical problems encountered have been solved, and now we have an antitoxin so concentrated that it carries when fresh 40 per cent more of the antitoxin principle than the label calls for, and yet does not make an unmanageable dose, even when a single injection of 20,000 units is to be given. Moreover, in the processes of concentration excessive viscosity has been avoided, for that would interfere with rapid absorption. And the syringe packages now being offered have won the praise of the profession.

Our readers should take the time to follow what Parke, Davis & Co. have to say about "Improvement of Antitoxin" elsewhere in this issue.

The Management of an Infant's Diet

Malnutrition, Marasmus, Infantile Atrophy, Athrepsia

Mellin's Food	**8 level tablespoonfuls**
Skimmed Milk (1% fat)	**9 fluidounces**
Water	**15 fluidounces**

This mixture contains 56.61 grams of carbohydrates, thus supplying material that is utilized rapidly for heat and energy. The predominating carbohydrate is MALTOSE, which has the highest point of assimilation of any of the sugars, is immediately available as fuel and may be safely given in comparatively large amounts. The daily intake of protein from the employment of this formula is 15.54 grams, an amount calculated to be sufficient to replace depleted tissues and to provide for new growth. There is present in the mixture 4.32 grams of salts for replenishing inorganic elements.

The suggested modification furnishes nutrition in keeping with the character and amount of food elements best adapted to the particular demands of infants in an extreme state of emaciation and serves well as a starting point in attempting to meet the nutritive requirements of these undernourished babies.

Mellin's Food Co., 177 State Street Boston, Mass.

FOOT AILMENT NEGLECT BY THE MEDICAL PROFESSION

Attention is directed to an unusual medical journal advertisement on page —. Members of the profession have for so long neglected feet and foot ailments that people who suffer with ailing feet are seeking elsewhere for relief. Should this be so? Does not dissecting room experience, and a study of anatomy, physiology and pathology, give to the medical graduate a better foundation for understanding foot ailments than others who do not have that foundation knowledge? Are we neglecting one of the very important functions of our profession by failing to recognize foot ailments in their beginning? It is the family physician who has the opportunity to see foot defects in their beginning, and when so much can be done to relieve and prevent them. Footology and **non-surgical orthopedic service** is a branch of medical practice much neglected, and for which there is a need in every community. It need not be a specialty for every member of the profession to take up, but at least one medical graduate in a locality should be qualified and equipped to make a scientific examination, survey and diagnosis, and advise what is correct for modern, practical and scientific treatment.

Treatment of ailing feet, rebuilding broken arches, and the prevention of foot ailments and postural defects, is a branch of office medical practice which should be rendered by, or under the direction of medical graduates, and not left to individuals with good intent, but without proper foundation knowledge upon which to render the best service. Unless we feel the feet should not be treated by medical graduates it seems about time for members of the profession to give this neglected part of the body something besides eddyite absent treatment.

Opportunity for Women

Footology and Non-Surgical Orthopedic service, under the direction of medical graduates, opens a wide and useful field for many young women. Without the necessity of leaving their homes for foundation training and instruction, young women with proper physical and educational qualifications can study in the local service of a qualified and equipped medical graduate. Without the necessity of the long term training of the hospital bedside nurse, young women Student Aides will find opportunity to enter professional service and render constructive and congenial assistance and under the best possible surroundings.

In the prophylactic service for the prevention of foot ailments and postural defects young women become readily proficient after a year's intensive training under the proper auspices. As this is a professional service needed in every community, colleagues who realize the advantages of being able to render an unusual and needed service will find it to their advantage to cast about for the right type of young women to take up this scientific work.

DID HE GET WHAT HE WANTED?

An unpublished story during "clinical week" is to the effect that a visiting doctor had his Kansas City consultant make it possible for him to have a prescription filled. He was directed to the Snodgrass Drug Company, at Eleventh and Grand Avenue. On approaching the drug store, he found a line of men nearly a block long, and assuming they were on the same errand bent, took his place at the end of the line, only to learn an hour or so later, when he had worked his way up to the drug store, that they were there for baseball tickets.



THE WILLOWS MAGAZINE

One of the prettiest exchanges coming to our table is the little magazine issued by the Willows Hospital of Kansas City, Mo. The book is full of useful information, too, and well worth reading. Especially is it of value to the physician who is called upon for advice from an unfortunate girl, who "needs a friend." This institution, which is conducted along strictly ethical lines, has proved a friend indeed to many misguided girls, who are now leading upright lives and happily married. If you have not seen this magazine, send your name for a copy. See announcement in this issue.

PREGNANCY, ITS SIGNS AND COMPLICATIONS

The above is the caption of a neat booklet, just issued by the Denver Chemical Manufacturing Company, of New York. The illustrations, cleverly executed in colors, show the presumptive as well as positive, signs of pregnancy; and the differential diagnosis, where tumors are present, and pregnancy suspected. The many uses of antiphlogistine are pictured, and its application during and after the lying-in-period well defined. It is well worth reading. A copy will be mailed to any physician requesting same.

PROMPT RESULTS

Dr. Thomas F. Walsh, Physician in Chief of the Sisters and St. Mary's Hospital, Adj. Prof. of Medicine, U. B., in conversation with a friend at a recent medical gathering, said "That formula Comp. Phos. Tonic Dowd, I wrote four prescriptions for yesterday, certainly gives brilliant and quick results in nervous cases and as a tonic." His friend, a prominent specialist, replied, "I think it the best formula ever given the boys to work with." See description page 72 this issue.

IODIA IN SYPHILIS

In the so-called tertiary stage of syphilis there is a well recognized need for a moderate sized dose of the iodides kept up for a long period. Many years ago practitioners learned that with the well balanced formula represented by Iodia (Battle) they could introduce into the system the needed iodine without causing the distress so frequently following the use of less carefully compounded mixtures containing this valuable drug. Well tolerated and easily assimilated, Iodia (Battle) may be kept up for long periods, as is necessary in the treatment of syphilis, without producing the evil effects so frequently experienced with cruder preparations.

IMPROVING NUTRITION IN THE TREATMENT OF SOME SKIN LESIONS

That there is an intimate relationship between bodily nutrition and the resisting power of the skin, is demonstrated by the beneficial effect of reconstructives in the case of certain skin lesions which have resisted local and other usually employed agents in dermatoses. With improvements in the general health brought about by the administration of reconstructives, a change for the better frequently takes place in the lesion. Standing conspicuously among the agents which will promote a nutritional influence on the skin is Cord. Ext. 01. Morrhuae Comp. (Hagee). A tissue food of high order and aiding materially in metabolism, it will be found of marked value in those dermatic lesions whose continuance depends upon disturbances of general nutrition.

NO OSTEOS NEED APPLY!

The manager of the Flood building, San Francisco, a physicians' building, has refused to lease offices to osteopaths and is ousting those who are already tenants in the building.

"When Winter Comes"

—a great many patients—especially the weak and debilitated—need to be fortified against the depressing effects of cold weather, and for this purpose probably no remedy is more widely employed by physicians of experience than

Gray's Glycerine Tonic Comp.

If its use is started early, as soon as the chilly days of Fall begin, this tonic reconstructive will, in the great majority of cases promptly raise the functional activity of vital organs, and as a logical sequence, produce a marked gain in the defensive powers of the body against germ attack.

Gray's Glycerine Tonic Comp. will thus enable the practitioner to carry many a patient through the Winter with gratifying freedom from the colds, coughs and catarrhal affections in general, that make this period so trying and dangerous to those susceptible to the acute infections.

135 Christopher St. **The Purdue Frederick Co.** New York

SONNET TO A GOLF BALL

By Edgar A. Guest

Contrary woman, saying yes for no,
Not more contrary is than you,
White dimpled ball!
Of life's mad, willful things, you lead them all.
Straight to the threshold flies the driven snow,
Where wills the Master Wind, the pure flakes go;
But where man bids you drop, you will not fall.
Much deviltry you hold for one so small,
His fondest dreams for sport you overthrow.

Perverse you are, perverse your dollar kin.
Swift is your flight, but oft you will not fly;
Sent to the cup, the victory to win,
You reach the lip, then stop—
I wonder why?
Art thou a woman, changed by magic touch,
Pleased when you hurt the man who loves you much?

(Copyright, 1923, by Edgar A. Guest.)

DAMAGES ORPHANAGE

Damage to the extent of about $20,000 was inflicted on the Christian Home Orphanage at Council Bluffs, Iowa, by floods from excessive rains and cloudbursts on the nights of September 28 and 29. Every building at this great institution was damaged, the heating, lighting and power plants rendered useless for several days, and the store rooms in the basements of the buildings were flooded and thousands of dollars' worth of supplies ruined. This is the worst catastrophe that has ever befallen this work, and comes as a serious blow when the institution was already struggling to free itself of debt. This institution is non-sectarian, receives orphan and destitute children from all parts of the country and is supported entirely by the voluntary contributions of charitable people. It is appealing to the public for a Thanksgiving offering to help overcome the losses by the recent floods and to meet running expenses in the daily care of two hundred and fifty inmates. We have had calls from those in distress in foreign climes and have responded to them. Here is a good work right here at home that has met serious trouble and is now asking us for help. Let all send something at Thanksgiving and help to put the home of those little children back on its feet. Address The Christian Home Orphanage, Council Bluffs, Iowa.

SCIENTIST SERIES

Physicians and druggists throughout the country are receiving in their mail a card bearing an excellent likeness of Emil von Behring, the eminent bacteriologist, who is probably best known for his discovery of Diphtheria Antitoxin.

Inquiry reveals that this card is the first of a Scientist Series, being issued by the H. K. Mulford Company, Philadelphia.

Believing that physicians and druggists will be interested in seeing and preserving likenesses of some of the noted scientists and physicians whom they read and hear so much about, the Mulford Company have planned this unique series, and although the series has only been started, a great many favorable comments have already been received, and the Mulford Laboratories are being congratulated upon this original and high class form of advertising.

HYPERSUSCEPTIBILITY

"I fear your brother has the hay fever pretty badly," said one man to another.

"He has. He even sneezes every time he passes a grass widow."

The Medical Herald and Electro-Therapist

Editorial and Business Offices
115 East Thirty-first Street, Kansas City, Mo.

Subscription, $2 a year, in advance, including postage to any part of the United States, Alaska, the Philippines, Cuba and Mexico. Canada, 25 cents additional. Postage to foreign countries in the Universal Postal Union, including Newfoundland, 50 cents a year additional.

The Medical Herald and Electro-Therapist aims to reflect the progress in the sciences of medicine and surgery, especially throughout the Missouri Valley and Southwest, the territory of its greatest distribution.

Concise and practical articles, news and reports of interesting cases invited, and should be typewritten.

The privilege of rejecting any communication is reserved, and all papers accepted must be for exclusive publication in this magazine, unless otherwise arranged.

To contributors of original articles a liberal number of copies of the Herald will be given (or mailed free of expense, if addresses are furnished) and the printers will furnish reprints at reasonable rates, application for same to be made when proof is returned.

The editors are not responsible for the utterances of contributors or correspondents.

Illustrations will be furnished at reasonable rates, if drawings or photos are furnished.

Subscribers changing their addresses will please notify us promptly, as magazines cannot be forwarded without adding postage.

Advertising forms close on the 20th of each month. Time should be allowed for correction of proof.

Have you renewed your subscription?
Paid your dues?

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The *truth* concerning the great value of free Iodine therapy is too well established to admit of controversy, also for more than twenty years it has been demonstrated that

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contains no alkaline salt; that it is *soluble in water in all proportions;* that *large and continued dosage* can be given with perfect safety, either internally or hypodermically.

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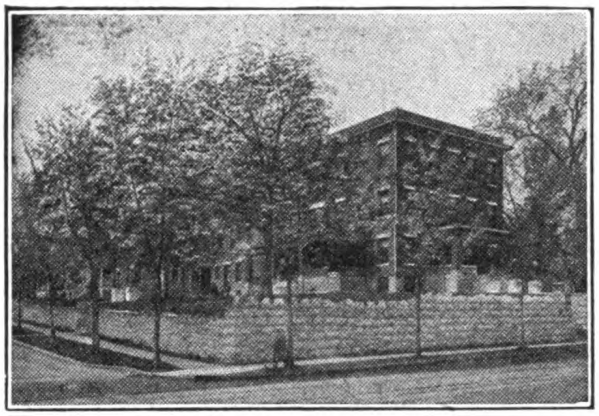
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Selected Mental Cases.

Alcohol Drug and Tobacco Addicts



Electricity

Heat

Water

Light

Exercise

Massage

Rest

Diet

Medicine

Beautifully situated in a pleasant residence section of the city. Fully equipped and well-heated. All pleasant outside rooms. Large lawn and open and closed porches for exercises. Experienced and humane attendants. Liberal, nourishing diet. Resident physician in attendance day and night.

Snapp's guests invariably declare, "The best table in Excelsior Springs"

Excelsior Springs of Missouri

"THE KARLSBAD OF AMERICA"

A Sanitary Survey by the United States Public Health Service gave Excelsior Springs a perfect score, 100%.



Hotel Snapp

Excelsior Springs, Missouri

ABSOLUTELY FIRE PROOF

A modern, thoroughly equipped mineral bath department in hotel with trained attendants

SPECIAL RATES TO PHYSICIANS UPON REQUEST

Hourly Electric Car Service Between Kansas City, St. Joseph and Excelsior Springs

The after-effects of Illness are sometimes more serious than the disease itself.

Fellows' Syrup of the Hypophosphites

accelerates Convalescence, restores Energy and Vitality; and for over fifty years has been known as

"The Standard Tonic"

SAMPLES AND LITERATURE ON REQUEST.

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26 Christopher Street, New York, N.Y., U.S.A.

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